HABITUATION IN NONAMBULATORY, PROFOUNDLY MENTALLY RETARDED CHILDREN: DELAYED RECOGNITION MEMORY AND INDIVIDUAL DIFFERENCES

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ABSTRACT

Immediate and delayed visual recognition memory have been demonstrated in normal infants using the habituation-dishabituation paradigm (Martin, 1975). Because visual fixation is present in the behavioral repertoire of some nonambulatory, profoundly mentally retarded children, this paradigm has also been used to study visual memory in this population of children. There is strong evidence for immediate recognition memory in nonambulatory, profoundly mentally retarded children (Kelman & Whiteley, 1986; Shepherd & Fagan, 1981); however, there is little information concerning their delayed recognition memory. Butcher (1977) and Ellis and Boyd (1982) have found some evidence for delayed recognition memory over intervals of 180 seconds, but Krenn (1986) did not find delayed memory after a 24 hour interval. The present study attempted to demonstrate delayed recognition memory after a 10-minute interval.

In addition, the present study investigated measures of of individual differences in performance during habituation. Stable measures of individual differences in habituation have been demonstrated in normal infants (Bornstein &

Benasich, 1986; Columbo, Mitchell, O'Brien, & Horowitz, 1987). Furthermore, relationships between these individual difference measures and measures of infant's memory ability have been found (McCall, 1979). Comparable measures of individual differences in habituation have not been investigated in nonambulatory, profoundly mentally retarded children.

The habituation-dishabituation paradigm was used to investigate immediate and delayed visual recognition memory in 20 nonambulatory, profoundly mentally retarded persons. The stimuli were simple geometric forms. Subjects were tested under four different experimental conditions, administered in separate sessions. Each session consisted of four phases: 12 habituation trials, 4 test trials, a 10-minute delay interval, and a second set of 12 habituation trials. Under Condition 1 (AAA), the habituating stimulus (Stimulus A) was presented on all habituation and test trials. In Condition 2 (AAB), Stimulus A was presented during the first set of habituation trials and during the test trials. A novel stimulus (Stimulus B) was presented during the second habituation phase. In Condition 3 (ABA), Stimulus A was presented during the habituation trials, Stimulus B was presented during the test trials, and Stimulus A was re-presented during the second habituation phase. Under Condition 4 (ABC), the habituating stimulus

(Stimulus A) was presented during the familiarization phase, a novel stimulus (Stimulus B) was presented during the test phase, and a second novel stimulus (Stimulus C) was presented during the second set of habituation trials.

Greater fixation of the novel stimulus relative to the familiar stimulus during the test phase provided evidence for immediate recognition memory. Evidence for delayed recognition memory was weak. Only a marginally significant difference between conditions for postdelay fixation times was found. Fixation of the novel stimulus presented in Condition 2 (AAB) was longer than fixation to the familiar stimulus in Condition 1 (AAA), this difference was not statistically significant. Measures of total fixation time during the habituation phase were stable across sessions, but measures of amount of habituation were not stable. Immediate memory was significantly correlated to delayed memory. The delayed memory measures were significantly correlated with amount of fixation during habituation. These results were compared to previous research with this population and research using similar techniques with infants. The effectiveness of the subject-control methodology with this population was questioned.

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INTRODUCTION

Nonambulatory, profoundly mentally retarded children are characterized by debilitating physical handicaps concomitant with profound mental retardation. Landesman-Dwyer and Sackett (1978) have suggested that the term nonambulatory, profoundly mentally retarded be applied to profoundly retarded individuals who are: (a) incapable of moving through space, even with physical assistance or equipment such as wheelchairs, (b) totally lacking in all adaptive behavior skills, and (c) extremely small for their chronological age, especially in head circumference. Many of these children have severe forms of cerebral palsy, resulting in scoliosis, muscular atrophy, and joint stiffness. Most have severely limited upper limb and hand control, and some have difficulty supporting their heads.

Persons scoring more than five standard deviations below the mean on standard intelligence tests are classified as profoundly mentally retarded (American Association on Mental Deficiency, 1983). However, because of physical and behavioral characteristics incompatible with testing, many nonambulatory, profoundly mentally retarded children cannot be assessed using these standard instruments (Shepherd &

Fagan, 1981). This classification, then, is frequently a function of their lack of testibility rather than an achieved low score (Berkson & Landesman-Dwyer, 1977).

Some researchers have addressed this assessment difficulty by using mental age measures from infant developmental tests (such as the Bayley Scales of Infant Development; Bayley, 1969) to estimate functional level in nonambulatory, profoundly mentally retarded children (e.g., Butcher, 1977; Kelman & Whiteley, 1986). Mental age estimates for the children in these studies ranged from under 2 months to 12 months (Butcher's mean MA = 5.3 months; Kelman & Whiteley's median MA = 3.5 months).

Shepherd and Fagan (1981) have argued that nonambulatory, profoundly mentally retarded children are functionally similar to normal human infants. Mental age estimates place these children in the infancy range. They lack all adaptive self-care skills, and are dependent on others for all their needs. Functional similarities to normal infants suggest that methods which have proved useful in the study of infants may also be profitably employed in the study of nonambulatory, profoundly mentally retarded children. Techniques which capitalize on the behaviors present in most nonambulatory, profoundly mentally retarded children (e.g., visual fixation, Whiteley & Krenn, 1986) may be particularily useful. One technique that has been widely

used with infants is the habituation-dishabituation paradigm.

The Habituation-Dishabituation Paradigm

The visual habituation task. The habituation task typically involves a series of familiarization trials during which the subject is exposed to the same stimulus repeatedly. Initially, amount of visual fixation is high, but fixation declines with subsequent exposures. Following the familiarization trials, the subject receives a number of test trials in which the presentation of the familiar stimulus is alternated with the presentation of a novel stimulus. Visual attention usually increases when the subject is presented with the novel stimulus, but remains low in response to the habituating stimulus (Cohen et al., 1971; Olson & Sherman, 1983).

The decrease in visual attention can be attributed to a memory trace for the habituating stimulus if factors such as motor fatigue, sensory adaptation, and changes in behavioral state can be discounted as explanations for the response decrement (Olson & Sherman, 1983; Werner & Perlmutter, 1979). Dishabituation, the increase in visual attention to the presentation of a novel stimulus, suggests that the earlier response decrement could not be explained by any of these general factors. If these factors contributed to the

response decrement, a continued low rate of responding would be expected regardless of changes in the stimulus (Cohen, Gelber, & Lazar, 1971; Olson & Sherman, 1983). Additionally, dishabituation to the novel stimulus is evidence that habituation is specific to the familiar stimulus. It is the differential response to the habituating stimulus and the novel stimulus that implies memory for the habituating stimulus.

The traditional method of presenting habituation trials is the fixed-trials procedure. Using this methodology, subjects are presented with a predetermined number of trials of prespecified duration. The presentation of the stimulus is independent of the subject's behavior, and there is no variation in presentation across subjects. A more recent approach to the presentation of habituation trials is the subject-control procedure. In one version of this approach, subjects are cued to the availability of the stimulus by a blinking light. When the subject attends to the screen, the test stimulus is presented and a trial begins. When the subject looks away, the trial ends.

The subject-control procedure has been widely adopted by infancy researchers (e.g., Caron, Caron, & Meyers, 1982; Cohen & Gelber, 1975; Creighton, 1984; Slater, Morrison, & Rose, 1984) for a number of reasons. Some investigators have found that the interactive quality of experimental

sessions reduces subject attrition due to fussiness and inattention (Cohen & Gelber, 1975; Horowitz, Paden, Bhana, & Self, 1972). Also, it is theoretically elegant to consider each fixation one trial, as it is a period of learning with a definite start and end point.

Because the subject-control procedure is sensitive to the subject's behavior, it combats a number of practical considerations inherent in the fixed-trial procedure. For example, fixed trials in which the subject does not fixate the stimulus present a problem. It is difficult to assert that a learning trial has actually occurred, and yet this stimulus presentation contributes to the total number of trials. A second difficulty ensues when the subject is attending to the stimulus when the preset stimulus offset occurs. In this case, although the subject may have continued fixating, the opportunity to do so is denied. Clearly, the amount of fixation time for such a trial would not be a good indication of visual attention for the stimulus. The subject-control procedure permits a greater deviation between subjects in the rate and duration of presentation trials in response to each subject's attentive behavior, and so, reduces these types of concerns.

The subject-control procedure introduces a new type of methodological consideration, however. Because trials are determined by the subject's looking behavior, judgment of

trial onset and offset are necessary. One study with infants found high interobserver agreement for trial onset, but trial offset judgments were less reliable (Ames, Hunter, Black, Lithgow, & Newman, 1978). Much of the error in offset judgment occurs in discriminating the true end of a fixation from a brief look away from the stimulus. As an incorrect decision results in the premature removal of the stimulus, the interactive advantages of this mode of stimulus presentation are reduced by this type of judgment error. Some researchers have used two observers, and have not removed the stimulus until both observers agree the trial has ended (e.g., Ames et al., 1978; Olson & Sherman, 1983). Alternately, the use of an offset criterion has been adopted to combat the problem of unreliable offset judgements. Using this control, the stimulus is not removed until the infant has turned away from the stimulus for some minimum duration, for example, at least a 1.5 second period in Bornstein and Benasich's (1986) study. Regardless of unsolved methodological problems, most infancy reseachers use the subject-control habituation procedure.

A similar task, the paired-comparisons procedure, has also been employed to measure visual memory (Fagan, 1970, 1978; Lasky, 1980). In the paired-comparisons procedure, a pair of identical stimuli are presented on each familiarization trial. Following the familiarization phase,

the familiar stimulus and a novel stimulus are presented simultaneously, with positions alternating over a number of test trials. Even with very brief exposure to the familiar stimulus, infants direct more visual attention to the novel stimulus than to the familiar stimulus during the test trials (Fagan, 1978). The infants' preference for the novel stimulus is evidence that the familiar stimulus has been remembered if intrinsic differences in interest for the two stimuli are controlled.

Using a paired-comparisons procedure, novelty preference can be demonstrated for stimuli presented for very short study periods (Fagan, 1974). The total study times are shorter than fixation times required to induce habituation to the stimulus; hence, it can be argued that a memory trace is at least partially formed prior to habituation. This implies that the habituation procedure may not be as sensitive to some visual memory capabilities as the paired-comparisons procedure (Werner & Perlmutter, 1979). The standard habituation procedure, however, ensures that differential responding to the familiar and novel stimulus is due to a sustained internal memory trace for the familiar stimulus because the stimulus is not available for direct comparison during the test trials. Because the familiar stimulus is available to the subject during test trials in the paired-comparisons procedure, it is more difficult to

assess the strength of the memory trace independent of these brief "relearning" trials.

Visual fixations in both procedures are measured using the corneal reflection technique (Maurer, 1975). Corneal relection refers to the pinpoint of light which is reflected on the cornea of a subject who is looking directly at a light source. The light reflection can be seen on the pupil of the fixating subject by an observer facing the subject (Maurer, 1975; Slater & Findlay, 1975). Interobserver reliability in recording visual fixations using this technique is quite high (Cohen et al., 1975; Kelman & Whiteley, 1986). Also to its advantage, this mode of measurement tolerates a large amount of head movement, and for this reason is especially well-suited for use with infants and nonambulatory, profoundly mentally retarded children.

Visual habituation research. The habituation-dishabituation paradigm has been applied to many questions in infant memory and perception, for example, color vision (Bornstein, 1975), social recognition (Caron, Caron, & Meyers, 1982), and facial recognition memory (Fagan & Singer, 1979). In a typical study with nonhandicapped infants, Slater, Morison, and Rose (1984) assessed habituation and novelty preference with newborns (mean age = 3 days, 6 hours). In their first experiment, Slater et al.

used a subject-control procedure to habituate newborns to complex, colored stimuli. Habituation was determined by a 50% fixation decrement criterion. Decrement criteria are established by calculating the mean length of fixation for the first two or three presentations of a stimulus. When the mean length of fixation over two or three subsequent trials is less than 50% of the original fixation times, habituation is inferred. Paired presentations of the habituating stimulus and a novel stimulus followed the habituation trials. The newborns habituated to the repeated presentation of the familiar stimulus, and showed novelty preference during test trials.

In another experiment (Experiment 3) using the same stimulus set, neonates were exposed to the habituating stimulus for 50-seconds looking time. This exposure time is about half the time required to induce habituation, as indicated by fixation times in Experiment 1. In this case, infants failed to display novelty preference. These results suggest that it is necessary for habituation to occur before a novelty effect can be demonstrated in neonates.

Taken together, the results of these experiments argue strongly for the presence of habituation and novelty preference in newborns. Further, it appears that novelty preference is dependent on habituation to the familiar stimulus in neonates, a result dissonant with findings from

older infants. Fagan (1974), for example, reported that 5-month-old infants showed novelty preference after 3 or 4 seconds of exposure to the familiar stimulus.

The Slater et al. study shows how the standard habituation procedure can be used to demonstrate immediate visual recognition in neonates. When taken together with other infant studies, differences between populations of infants (e.g., neonates and 5-month-olds) become apparent. Through the use of the habituation and paired-comparisons procedures, the memory capabilities of nonambulatory, profoundly mentally retarded children can also be studied. A review of several of these studies will indicate the particular range of visual memory abilities that have been investigated with these children.

Using a paired-comparisons procedure, Butcher (1977) investigated recognition memory for colors and faces in 16 profoundly retarded children (mean CA = 6.1 years; mean MA = 5.3 months on the Bayley Scales of Infant Development). During the first session, the children were presented with either an achromatic photograph of a face or a red- or green-colored geometric pattern (square or diamond-shaped pattern). Target stimuli from either the color or face class were presented for a 2-minute familiarization period, followed by two 5-second recognition test trials. This procedure was immediately repeated with the other stimulus

class. Butcher's data indicate that during the test phase, a significant novelty preference was demonstrated for all but the colored diamond pattern. It was concluded that these results supported the presence of recognition memory in nonambulatory, profoundly mentally retarded children.

A second issue addressed by Butcher's data was the visual attention behavior of her nonambulatory, profoundly mentally retarded subjects when compared to infants of similar mental age. She found that, on the average, her subjects spent about half the time normal infants spend fixating these stimuli. Contrary to expectation, there was no difference in visual attention directed to faces and patterns. Although normal infants spend more time looking at photographs of faces than they do at abstract patterns (e.g., Miranda & Fantz, 1974), Butcher's nonambulatory, profoundly mentally retarded subjects did not demonstrate differential attention as a function of stimulus class. While the results of this study provide evidence for recognition memory in this population, they also suggest that there may be some important differences between normal infants and nonambulatory, profoundly mentally retarded children in their approach to this task.

Switzky, Woolsey-Hill, and Quoss (1979) measured visual memory in 12 nonambulatory, profoundly retarded children (mean CA = 10.3 years; mental age estimates ranged from 2.9

to 8.6 months on the Denver Developmental Screening Test). A subject-control habituation procedure was employed to present either a 2 x 2 or a 12 x 12 black and white checkerboard pattern to a preset habituation criterion. Upon achieving criterion, subjects received 6 test trials in which the novel and familiar stimuli were alternately presented. Dishabituation was demonstrated in response to the change in stimulus.

Shepherd and Fagan (1980; cited in Shepherd & Fagan, 1981) investigated recognition memory for high and low contrast abstract patterns presented within a series of memory tasks. The subjects were 17 profoundly retarded children (mean CA = 7 years; mean MA = 4 months on the Bayley Scales). Using the paired-comparisons approach, subjects received two 15-second study periods followed by two 5-second test trials for each memory problem. Four memory tasks were presented during each of three sessions. Mean fixations to novel stimuli provided significant evidence of visual memory for the first three of the four memory tasks presented within each session. Recognition memory was not demonstrated for the fourth memory problem in a series.

In a recent study, Kelman and Whiteley (1986) used the fixed-trial habituation procedure to investigate generalization of habituation to geometric forms of varying

similarity to the habituating stimulus. Subjects were 12 nonambulatory, profoundly mentally retarded children (mean CA = 7.83 years; median MA = 3.5 months on the Bayley Mental Scale). The subjects were habituated for 12 trials to a circle or a narrow ellipse. They then received 8 test trials in which the habituating stimulus and three generalization stimuli, representing a small, medium, or large change from the habituating stimulus were presented. For example, if the subject was habituated to a circle, the small change stimulus was a wide elipse, the medium change stimulus was a narrow ellipse, and the large change stimulus was a triangle. There was evidence for habituation over familiarization trials and an increase in fixation times on test trials. There was no evidence for generalization of habituation in the group data; however, two subjects demonstrated generalization gradients reflecting the degree of stimulus change.

Taken together, these studies support nonambulatory, profoundly mentally retarded children's capacity for immediate visual recognition memory for faces, colors, geometric designs, and abstract patterns. Additionally, the habituation and paired-comparisons procedures appear to be useful for answering specific memory questions (e.g., What types of stimuli are most effectively stored in memory? Does generalization of learning occur to similar stimuli?).

Another process that can be investigated using these procedures is delayed recognition memory.

Delayed Recognition Memory

Knowledge about the length of retention for an encoded memory trace is important for understanding memory capabilities and limitations. Delayed recognition is memory for a stimulus event retained for an interval of time before testing. This memory phenomenon has been investigated in infants through the use of paired-comparisons and habituation techniques.

In an early study, Fagan (Experiment 2, 1970) presented infants (mean age = 21.3 weeks) with black and white patterns using the paired-comparisions procedure. Subjects received 2 minutes of familiarization, followed by two 10-second test trials in which the familiar stimulus was presented with two different novel stimuli. Two hours later, the test trials were readministered. Attention directed to the novel stimulus was significantly greater for both test trials, providing evidence of delayed recognition memory in infants of this age.

Fagan (Experiment 1, 1973) readdressed delayed memory in a study of 36 infants (mean age = 23.7 weeks). The stimuli were abstract, black and white patterns. Again, the

paired-comparisons procedure was used to administer 2-minute familiarization trials and two 10-second test trials. Thirty seconds later, a second memory problem was presented in the same manner. Next, subjects were tested following a 24-hour or a 48-hour delay. The results indicated recognition memory for abstract achromatic patterns over each retention interval. In Experiment 2, memory for black and white photographs of faces was demonstrated two weeks after initial presentation.

Martin (1975) employed a habituation procedure to present three-dimensional colored stimuli to infants aged 2 months, 3.5 months, and 5 months. Seventeen trials of 30 seconds duration were presented on two consecutive days. On both days, the first 4 trials were warm-up presentations, followed by 6 habituation trials, 3 test trials during which a novel stimulus was presented, and 3 test trials during which the habituating stimulus was presented. The seventeenth trial was a posttest trial during which a second novel stimulus was presented. The same habituating stimulus was used for all habituation trials, but different novel stimuli were employed in each session.

Infants in all age groups showed a greater decrement in responding to the habituating stimulus on the second day of the experiment than on the first, demonstrating the ability to retain abstract visual stimuli over a 24-hour retention

interval. Older infants showed greater 24-hour savings than younger infants. Response decrements for the 2-month age group could not be attributed to habituation because this age group did not show response recovery to the novel stimulus. Therefore, the 24-hour retention effect can only be claimed for the 3.5- and 5-month-old infants.

Cornell (1979) tested 5 to 6-month-old infants' delayed recognition memory over retention intervals of 40, 65, and 105 seconds, and 48 hours. The paired-comparisons procedure was used to present colored abstract patterns, black and white abstract patterns, and achromatic photographs of faces for 10- and 20-second study periods. Immediate recognition was demonstrated for all stimulus classes. Delayed recognition was not demonstrated for any of the retention intervals for either the 10- or 20-second study periods. However, when infants were permitted a brief restudy period of 5 seconds immediately prior to the recognition test, delayed recognition memory was demonstrated, even though the restudy period alone was not sufficient to produce immediate recognition memory.

The results from Cornell's study are consistent with data from a study by Fagan (1977) in which a brief restudy period facilitated delayed memory. Cornell hypothesized that the infants retained information from their initial experience with the familiar stimulus that permitted rapid

familiarization to that stimulus during re-exposure. One implication of this finding is that recognition tests alone may be less sensitive to long-term retention than a test of savings or relearning. That is, while a simple test of retention indicated that the memory trace was not maintained over even very short intervals, the test of savings suggested that the initial exposure to the familiar stimulus was not forgotten entirely.

Additionally, these findings may explain the superiority of paired-comparisions procedures in demonstrating delayed recognition memory. As the familiar stimulus is available throughout the test trial, it is possible for the infant to relearn or refresh his or her memory for the familiar stimulus. The paired-comparison tests of delayed recognition memory may actually be tests of a reinstatement phenomenon.

In summary, these studies provide strong evidence for long term memory abilities in infants as young as 3.5 months. The positive results from these infant studies suggest that habituation and paired-comparison procedures may be effective means of assessing delayed recognition capabilities in nonambulatory, profoundly mentally retarded children.

There have been very few studies addressing this issue with nonambulatory, profoundly mentally retarded children. Butcher (1977) used the paired-comparison procedure to test for memory of colors and faces after delays of 40 seconds and 180 seconds. She found no evidence for delayed recognition memory in 16 nonambulatory, profoundly mentally retarded children on three of four paired-comparisons tests. There was some indication of delayed recognition for large squares differing in color in both the 40-second and 180-second delay conditions. Demonstration of immediate recognition for these memory tasks suggested that the delayed memory failure could not be attributed to an initial inefficiency in encoding. Further, because subjects fixated the stimulus for similiar durations in both immediate and delayed test trials, the lack of delayed recognition cannot be attributed to a general attention deficit on delayed trials. However, Butcher presented two memory tasks in succession before testing for the delayed recognition of the two familiarized stimuli. It is possible that there was interference with the memory for each stimulus resulting from the presentation of these two tasks in the same session.

In Shepherd and Fagan's (1980) study described previously, immediate recognition memory was demonstrated for abstract patterns on the first three of four memory

tasks presented in succession. The results of this study suggested that the memory trace established by exposure to the familiar stimulus was maintained beyond the end of the immediate memory test. As memory tasks presented in the fourth serial position were not remembered, it may be that memory traces for previously presented tasks were maintained and served as a source of proactive interference. However, fatigue, sensory satiation, or a change of state are alternate explanations for lack of memory for the fourth problem because Shepherd and Fagan presented all these memory tasks in the same session. Their work, however, suggests that delayed recognition memory may be present in nonambulatory, profoundly mentally retarded children.

Ellis and Boyd (1982) used the paired-comparisons procedure to study memory for faces. Thirty subjects were tested: 14 moderately retarded (mean IQ = 44.3), 6 severely retarded (mean IQ = 30.5), and 10 profoundly retarded (mean IQ = 15.0). Familiarization trials continued until 30 seconds of looking time had accrued. Recognition memory was tested across 0-, 10-, 30-, and 180-second delay intervals. Slides of line drawings were displayed during the delay interval, with changes in the filler slide every 10 seconds. To maintain the subjects' interest in the presentation screen during the session, reinforcer slides were presented when the experimenter decided attention was waning. The

sample was divided at the median IQ value into high and low IQ groups. There was no effect of level of IQ on memory performance. There was a significant effect for the retention interval. Subjects showed the greatest decline in novelty preference during the first 10-second delay interval. Thereafter, novelty preference stabilized at a level significantly above chance for the 30-second and 180-second delay intervals. The results of this study provide support for delayed recognition memory in severely and profoundly mentally retarded children over delays of up to 180 seconds.

There are several procedural problems with this study which make interpretation difficult. Subjects were given different amounts of a "reinforcer magazine" designed to maintain subjects' attention to the screen. Because these reinforcers were in the same modality as the to-be-remembered stimulus, their presentation may have interfered with memory encoding of the to-be-remembered stimulus. Also, subjects with the greatest attention deficits received the greatest number of reinforcement presentations, introducing a confound. Ellis and Boyd attempted to control the subjects' activities during the delay interval by presenting line drawings as filler slides. As the length of the delay interval increased, so did the number of filler slides. This means that as the delay

interval was extended, the number of potentially interfering stimuli increased. A third source of interference was introduced through the presentation of two memory tasks during the same session. Interference effects across memory tasks, exacerbated by the delay interval, may be present. In summary, interference confounds are present throughout this study, limiting conclusions concerning delayed recognition memory in this population.

Krenn (1986) used a fixed-trials habituation procedure to assess recognition memory in 16 nonambulatory, profoundly mentally retarded children (mean CA = 10.12 years; median MA = 5.0 months on the Bayley Mental Scale). The stimuli consisted of 4 black circles on a white background arranged in either line (vertical, horizontal, oblique) or block patterns. She presented sixteen 20-second habituation trials followed by eight 20-second test trials in which the habituating and novel stimulus were alternated. Each subject participated in experimental sessions on three consecutive days. The same habituating stimulus was used for all habituation trials but the novel stimulus was changed for each session.

Subjects demonstrated response decrement over the habituation trials. Dishabituation to the novel stimulus in the test phase indicated immediate recognition memory for these stimuli. There was no change in the rate of

habituation over the three sessions, providing no evidence for delayed recognition memory over a 24-hour retention interval for this sample. However, during immediate test trials, presentation of the habituating stimulus was interspersed with the presentation of a novel stimulus. Exposure to the novel stimulus may have interfered with delayed memory for the habituating stimulus on the next day.

In summary, there is little evidence for delayed recognition memory in profoundly mentally retarded children. Evidence of interference of previously familiarized stimuli with recall of subsequent familiarized stimuli in Shepherd and Fagan's (1980) study suggests that nonambulatory, profoundly mentally retarded children may be capable of maintaining a memory trace for several minutes. Ellis and Boyd (1982) provided evidence for delayed memory over intervals of 180 seconds with severely and profoundly retarded subjects, and Butcher (1977) showed delayed memory over a 180-second interval for one of four stimuli she presented. Krenn (1986) was not able to show long term memory over a 24-hour delay interval. Work with infants demonstrates infants' ability to remember information over prolonged retention intervals. The most sensitive methods for studying long-term memory in infants involve savings and relearning (e.g., Cornell, 1979). Adoption of similar methodologies in work with nonambulatory, profoundly

mentally retarded children may prove more successful for demonstrating long-term memory capabilities in this population.

Individual Differences in Habituation Patterns

Nonambulatory, profoundly mentally retarded children are a very heterogeneous group with respect to physical and mental capabilities and limitations (Berksen & Landesman-Dwyer, 1977; Shepherd & Fagan, 1981). Their individual variability makes precise statements about skills in groups of these children difficult. If meaningful subgroups of children can be formed, based on, for example, memory ability, then more precise planning for individual treatment needs may be possible.

Recent work with infants has suggested that individual differences in habituation may be related to other measures of cognitive functioning (e.g., Cohen & Gelber, 1975; McCall, 1974, 1979). McCall (1979) attempted to describe individual differences in habituation patterns. He habituated 86 5-month-old infants to one of two brightly colored line drawings using a subject-control procedure. Cluster analysis of fixation data produced three significantly different clusters describing 59 of the subjects tested. Cluster 1 subjects (44% of the sample) produced a smooth, monotonic decrement function representing

the characteristic habituation trend. Cluster 2 subjects (19% of the sample) showed an initial decrease in fixation followed by a steep rise to a peak on the fourth habituation trial which fell to criterion values. Cluster 3 (25% of the sample) characterized subjects with a moderate peak on the fourth fixation trial, but with variable fixation times across habituation trials.

There was no relationship between demographic variables or Bayley Scale test scores and cluster membership. A difference between the cluster groups was reported in response to novelty. Cluster 1 babies responded to a novel stimulus with a lower level of looking than either Cluster 2 or 3 babies.

McCall readministered the habituation task to 77 of the initial group of 86 infants at 10 months of age. He found no consistency in response to novelty or pattern of habituation from 5 months to 10 months of age, suggesting that habituation patterns in early infancy may not be related to later habituation performance. However, McCall did not adjust for changes in interest for the presented stimuli across age, and this may account for the lack of continuity.

As compared with 5-month patterns, patterns at 10 months of age were flatter with more variablity in the placement of

peak (longest duration) fixation trials. Further, for both age groups, the placement of the peak trial was related to the subject's response to novelty, suggesting that the peak trial may have particular importance in encoding. Specifically, for 5-month-olds, the response to a novel stimulus was greater the later the peak fixation occurred in the habituation phase. For 10-month-old infants, the presence of an obvious peak trial during familiarization trials, or the presence of a peak trial before the last familiarization trial was related to increased fixation to the novel stimulus. McCall hypothesized that the peak trial is likely the trial during which the memory trace is formed.

Bornstein and Benasich (1986) investigated the short-term reliability of individual differences in habituation patterns in 32 infants (mean CA = 160.7 days). Babies were habituated to either female faces or simple geometric patterns using a subject-control procedure. Based on a priori hypotheses of possible habituation patterns, the data were divided into three groups: (a) exponential decrease group (approximately 60%) in which there was a smooth decline from initial fixation rates; (b) increase-decrease group (approximately 10%) in which fixation increased above first trial rates before reaching the habituation criterion; and, (c) fluctuating group (approximately 30%) in which there were at least two reversals in the direction of

fixation duration. These patterns were moderately consistent across two experimental sessions separated by 10 days, suggesting that habituation patterns may be a relatively stable measure of individual differences.

Averaging across the two sessions, Bornstein and Benasich looked at five variables which they suggested characterized habituation. These variables were: (a) mean looking time on the first two trials (baseline); (b) total amount of fixation to habituation criterion; (c) number of trials to habituation criterion; (d) slope of linear regression of infants' habituation data; and, (e) amount of habituation as inferred from the decrease in fixation between baseline and criterion trials. Comparison of the three groups of infants with different habituation patterns on these variables revealed differences in the total amount of fixation to criterion, in trials to criterion, and in the slope of the habituation function between infants. Of the three groups, the exponential decrease group accumulated the least amount of fixation time, had the fewest trials to criterion, and had the steepest slope.

Columbo, Mitchell, O'Brien, and Horowitz (1987) investigated the stability of individual differences in habituation using the subject-control method to present slides of faces to a 50% decrement criterion. A sample of 186 infants from four age groups (3, 4, 7, and 9 months old)

participated. Test-retest reliability over a 1 to 2 week interval was moderately high for peak amount of fixation, duration of first fixation, average fixation duration, and amount of habituation. A longitudinal sample of 69 infants was tested at 3, 4, 7, and 9 months. Peak amount of fixation and amount of habituation (calculated from the peak trial) were stable over this age range. Both longitudinal and cross-sectional data failed to find stability for number of trials to habituation, location of peak trial, and habituation pattern. Columbo et al. concluded that fixation duration measures such as average fixation duaration and peak amount of fixation may be important indicators of individual differences in infants' visual behavior.

Bornstein and Benasich's (1986) study suggests that total fixation time to criterion, trials to criterion, and slope of the habituation function may be important individual difference variables. McCall's (1979) results concerning the relationship of the placement of the peak trial and the subjects' response to novelty suggests that the position of the peak trial during familiarization may be an important variable. Columbo et al. (1987) found that peak trial duration and peak trial magnitude measures are reliable individual difference variables.

These measures of individual differences in habituation have not been studied in nonambulatory, profoundly mentally

retarded children. However, some researchers have provided individual subject data. Kelman and Whiteley's (1986) analysis of individual data indicated that 6 of 12 subjects demonstrated a statistically reliable response decrement during familiarization trials, and 3 of these subjects showed a significant response to novelty. Also, 2 of 12 children demonstrated generalization gradients that related to the test stimulus' similarity to the familiar stimulus. Krenn (1986) found evidence for habituation and recovery from habituation in her group data for 16 nonambulatory, profoundly mentally retarded subjects. Individual subject analyses revealed that 4 subjects demonstrated a significant response decrement over habituation trials, but only one subject showed a significant increase in fixation time to the presentation of a novel stimulus. Shepherd and Fagan's (1981) nonambulatory, profoundly mentally retarded subjects, as a group, demonstrated recognition memory through novelty preference. However, analysis of individual subject data indicated that only 7 of these 17 children displayed a significant novelty preference. Reports from these studies highlight individual differences in information processing in children classified as profoundly retarded.

Analysis of individual differences in habituation may help to describe the diversity in performance across subjects and to predict which subjects will show immediate

and delayed recognition. Shepherd and Fagan (1981) emphasize the importance of the study of individual differences in recognition memory in this population. They suggest consideration of individual differences may result in "more appropriate educational materials and procedures" and also may facilitate "the identification of those profoundly retarded children who will benefit most from an education" (p. 57).

Recent evidence suggests that habituation and novelty preference may be particularily important for understanding infant cognition and its relation to later cognitive abilities (Bornstein & Sigman, 1986; Fagan, 1984; Fagan & Singer, 1983; Rose, Slater, & Perry, 1986). Studies of infant populations expected to differ from normal children in later cognitive ability (e.g., Down's Syndrome, developmental delay) demonstrate reliable visual memory differences in infancy (Lewis & Brooks-Gunn, 1984; Mundy, Seibert, Hogan, & Fagan, 1983). These positive results suggest that visual attention is a sensitive measure of cognitive functioning in infancy and that the measurement of visual attention in nonambulatory, profoundly mentally retarded children might prove valuable for understanding their cognitive processes.

The Present Study

The habituation-dishabituation paradigm was used to investigate immediate and delayed visual recognition memory in nonambulatory, profoundly mentally retarded children. Immediate and long-term memory abilities were investigated using the subject-control presentation of simple geometric forms. Simple geometric forms were used because of research support for immediate memory using this type of stimulus (e.g., Kelman & Whiteley, 1986). Also, Butcher (1977) presented some evidence for recognition memory in nonambulatory, profoundly mentally retarded children over 40- and 180-second delay intervals

Subjects participated in four experimental sessions, each separated by at least 24 hours. Each session consisted of four phases: a series of 12 or 14 habituation trials, 4 test trials, a 10-minute delay interval, and a second set of 12 habituation trials. For two sessions, the number of habituation trials in the first series of habituation trials was extended to 14 trials to permit a partial-lag presentation of test trials. The partial-lag controlled for the possibility that fixation on a particular trial may increase by chance (Bertenthal, Haith, & Campos, 1983). It is necessary to show that response to novelty is independent of the trial on which the novel stimulus is first introduced.

Immediate recognition memory was assessed by a set of test trials which immediately followed the first set of habituation trials in two conditions. Immediate memory for the habituating stimulus was inferred from response recovery to the novel stimulus during the test phase. Delayed recognition was studied through the presentation of a second set of habituation trials, a relearning phase, occurring 10 minutes after the immediate test trials. During two sessions a novel stimulus was presented after the delay interval and during the other two sessions the familiar stimulus was presented following the delay. The relearning method of delayed recognition assessment was selected because it seems to be the most sensitive to the demonstration of savings from previous learning trials. As Krenn (1986) was unable to demonstrate delayed recognition over a 24-hour interval, investigation of retention over a much shorter interval was indicated. A delay interval of 10 minutes was selected because it was long enough to remove the subject from the testing situation during the delay interval to reduce possible fatigue or boredom with the procedure before the session continued. Also, reintroduction to the testing session more closely approximated the conditions of the initial habituation session. Delayed recognition memory was inferred from differential responding to novel and familiar stimuli in the second habituation phase.

Individual differences in fixation during habituation trials were analyzed and the relationships between habituation patterns and performance on recognition tests were studied. It was expected that a moderate degree of intrasubject consistency in individual differences in habituation would be found. Further, some measures of individual differences in habituation would be related to recognition memory. Specifically, subjects displaying a greater response decrement over the habituation trials and longer total fixation time would show greater response to novelty in both immediate and delayed test conditions.

METHOD

Subjects

The subjects were 20 nonambulatory, profoundly mentally retarded persons (13 females and 7 males) selected from the residential population of a public institution. Their chronological ages ranged from 6 years, 11 months to 22 years, 9 months (mean age of 13 years, 9 months). Their mental ages as estimated by the Bayley Mental Scale (Bayley, 1969) ranged from less than 2 months to 6 months with a median mental age of 4 months. Table 1 presents descriptions of each subject, including medical diagnosis.

Stimuli and Apparatus

The test stimuli consisted of a yellow circle (14.7 cm projected diameter), a white equilateral triangle (13.8 cm projected height), and a blue rectangle (21.0 x 12.1 cm projected dimensions). The stimuli were shown on a 22.5- x 22.5-cm rear projection screen using a Kodak Carousel 800 projector. The height of the screen was adjusted so that the stimulus was presented at the subject's eye level.

Table 1
Descriptions of Subjects

Name	Sex	Chronological Age[a]	BRS[b]	Diagnosis/Medical History[c]	Motor[c]	Sensory[c]
JH	F	6:11	32	Microcephaly Cerebral atrophy	Spastic Quadriplegia	Eyes not well co-ordinated
OG	M	14:4	34	Microcephaly Congenital Rubella	Spastic Quadriplegia Scoliosis	Sees and hears well
DF	M	18:2	71	Microcephaly of unknown prenatal origin Seizure disorder	Spastic Quadriplegia Scoliosis	Sees and hears well
TH	F	10:1	66	Seizure disorder from 6 months Prenatal toxemia	Spastic Quadriplegia Cerebral Palsy	Sees and hears without gross impairment
DK	F	10:6	42	Hyaline membrane disease Seizure disorder	Spastic Quadriplegia	Stabismus Eye movements jerky
TP	F	12:11	52	Cornelia de Lange syndrome	Can move wheeled walker	Hearing impaired Sees well
BM	F	9:11	46	Born to Grava II Para I mother Possible encephalitis	Athetoid Cerebral palsy	Sees and hears well
MB	M	13:5	28	Microcephaly Seizure disorder from 18 months	Quadriplegia	Responds to sound Visual response inconsistent

Name	Sex	Chronological Age	BRS	Diagnosis/Medical History	Motor	Sensory
JS	M	8:8	48	Microcephaly Seizure disorder	Spastic Quadriplegia	Can see and hear well
RL	F	13:11	43	Encephalopathy with microcephaly Perinatal asphyxia Seizure disorder	Spastic Paraplegia Athetoid Cerebral Palsy	Can eye-point
JM	F	13:4	21	Microcephaly of unknown origin	Spastic Quadriplegia Choreoathetoid hand movements	No gross impairments of vision or hearing
DM	M	16:2	34	Microcephaly Seizure disorder	Spastic Quadriplegia	Sees and hears well
SB	F	11:3	56	Severe brain damage due to encephalitis at 1 year Seizure disorder	Spasticity of hands Quadriplegia	Sees and hears well
KD	F	19:8	36	Hyperbilirubinemia Kernicteric brain damage	Spastic Quadriplegia Scoliosis	Eyes are not well co-ordinated
CDC	M	11:0	38	Hydrocephalitis at 3 months due to aqueducal stenosis Hypernatremia	Spastic Quadriplegia Cerebral Palsy	Hears normally

Name	Sex	Chronological Age	BRS	Diagnosis/Medical History	Motor	Sensory
LR	F	17:6	68	Microcephaly	Spastic Quadriplegia Scoliosis	No gross impairment of vision or audition
CM	F	19:9	51	Hydrocephalic Seizure Disorder	Deplegia	Visual impairment in one eye.
SH	F	14:6	26	Acute Western Equine Encephalitis at 7 months Seizure disorder	Cerebral Palsy Severe Athetoid Spastic Quadriplegia	Can see and hear well
EVO	M	22:9	60	Neonatal seizure disorder	Spastic Quadriplegia Can move wheelchair	Can see and hear well
CS	F	10:3	41	Microcephaly Delayed development of unknown origin	Choreoathetoid Scoliosis	Hearing loss in right ear Sees well

[a]Age as of June 1987

[b]Bayley Scales of Infant Development (Mental Scale) raw scores

[c]Information obtained from medical records

The screen was enclosed by a white frame with outer dimensions of 48 x 57 cm. A 15-watt fluorescent light, 47 cm long, was mounted on the frame 24 cm above the screen to provide adequate lighting for the video camera. The video camera was equipped with a zoom lens (f 11.5 - 70.0 mm Macro). A time base (accurate to 3/100 of a second) was superimposed on the video tape. The camera was placed above and behind the projection screen, and a black cloth was attached to the frame to shield the camera and the experimenter from the subject's view. A circular hole in the black cloth accommodated the camera lens.

White side-panels, 60 cm wide and 1.5 m high, were attached to the white frame. A white cloth was fastened across the top of the side-panels, and was extended to the rear of the testing room forming a tent over the enclosure to minimize extraneous stimulation. Wheelchairs were positioned in this enclosure such that the child's head was approximately 1 m from the screen.

A blinking cue light was centred on the bottom of the screen. It was operated manually by a switch located beside the video camera. A control bar, placed near the video camera, permitted the manual control of stimulus onset.

Activity Level Measurement

The activity level of each subject was measured before the first habituation trial and after the last test trial. Activity level was also measured before the first postdelay habituation trial and after the last postdelay habituation trial. A 30-second sample of behavior at each of these test points was taken from videotapes and described using the following categories developed by Whiteley and Krenn (1986): (a) sleep: closed eyes; regular slow respiration; little or no movement of body parts. (b) Low level of activity: open or blinking eyes; minimal movements of the body; no gross body movement. (c) Moderate level of activity: open and moving eyes; clear movements of at least one body part. (d) High level of activity: open and moving eyes; repetitive movements of at least one body part or movements of several body parts. (e) Distress: repetitive movements of at least one body part or movements of several body parts and whining or crying.

Procedure

Subjects were tested in the wheelchairs they normally used on their wards. They were positioned in the enclosure facing the projection screen. The experimenter then turned off the room lights and moved behind the screen. The camera was adjusted so that the subject's face was clearly visible

in the camera monitor, and further adjustments were made as needed during the testing session.

To initiate a trial, the experimenter triggered the blinking cue light. When the subject oriented toward the screen, the experimenter turned off the cue light and presented the stimulus. An observer in a control room adjacent to the testing room observed the subject's eyes on a video monitor and pressed switches to indicate the onset and offset of fixations. These switches controlled offset of the stimulus via timers on an electromechanical control panel. A fixation of at least .3 seconds was required before a trial was terminated. The stimulus was removed when the subject looked away from the stimulus for at least 1.5 seconds after a fixation of at least .3 seconds duration. Removal of the stimulus ended the trial. The cue light was reactivated immediately. The next trial began when the subject looked toward the screen.

Each subject participated in four test sessions, separated by at least 24 hours. Each session consisted of four phases: a series of 12 or 14 habituation trials, 4 test trials, a 10 minute delay interval, and 12 habituation trials. For two sessions, the number of habituation trials in the first series of habituation trials was extended to 14 trials to permit a partial-lag presentation of test trials. For each subjects one test phase in which a novel stimulus

was presented (Conditions 1 or 2) was lagged and one test phase in which the familiar stimulus was presented (Conditions 3 or 4) was lagged.

There were four conditions which directed the presentation of stimuli (see Table 2). The letters A, B, and C are used to indicate the habituating stimulus, the first novel stimulus in a session, and the second novel stimulus in a session, respectively. Subjects received the same habituating stimulus on each session. Each subject participated in all conditions, with the order in which conditions were administered determined by a Latin square (1-2-3-4, 2-3-4-1, 3-4-1-2, 4-1-2-3). Five subjects were assigned randomly to each order.

Under Condition 1, the habituating stimulus (Stimulus A) was presented on all habituation and test trials. In Condition 2, Stimulus A was presented during the first set of habituation trials and during the test trials. A novel stimulus (Stimulus B) was presented during the second habituation phase. In Condition 3, Stimulus A was presented during the habituation trials; Stimulus B was presented during the test trials, and Stimulus A was re-presented during the second habituation phase. Under Condition 4, the habituating stimulus (Stimulus A) was presented during the familiarization phase, a novel stimulus (Stimulus B) was presented during the test phase, and a second novel stimulus

Table 2
Stimulus Presentation Conditions

	Experimental Phase			
	HAB 1	TEST	DELAY	HAB 2
Condition 1	A	A	10 min	A
Condition 2	A	A	10 min	B
Condition 3	A	B	10 min	A
Condition 4	A	B	10 min	C

Note. HAB 1 and HAB 2 refer to the first and second habituation phase respectively.

(Stimulus C) was presented during the second set of habituation trials.

During the 10-minute delay interval, the subject was removed from the testing room for a brief playtime. Sessions were discontinued and readministered if: (a) more than 5 minutes elapsed between stimulus offset for a trial and the subject's orientating to the cue light for the next trial, or (b) if the subject was in the distress activity level category. Four sessions were discontinued for the first reason, one session was discontinued for the latter reason.

RESULTS

The video tapes were viewed frame-by-frame to score visual fixations. A fixation was recorded when the reflection of the stimulus was centered over the subject's pupil. Fixation onset and offset times were entered into an Apple IIe computer and for each trial the total fixation time and the interval between trials were calculated.

Fixation time analyses employed mean fixation times for blocks of two trials. First, the data from the first habituation phase were analyzed to determine if fixation time changed as a function of the number of stimulus presentations. Second, the test phase data were analyzed to determine if fixation time was related to the stimulus presented. Third, the postdelay habituation data were examined to assess the differential effects of the experimental conditions on fixation time. Lastly, individual differences in habituation were analyzed to study consistencies in subjects' performance within and between testing sessions.

Habituation Phase

The mean visual fixation times during the habituation trials are presented in Figure 1. The top panel presents means for 6 blocks of trials obtained by collapsing across all four conditions. The middle panel presents means for 8 trial blocks obtained by averaging over Condition 1 (AAA) and Condition 2 (AAB) only, and the bottom panel presents means for 9 trial blocks using data for Condition 1 or Condition 2 lag conditions. In each set of means, fixation times appear to decline from Trial Block 1 to Trial Block 3 and then remain stable for the remaining blocks of habituation trials.

A mixed factor analysis of variance was conducted on the 6-trial block habituation phase data (i.e., using data from all four sessions). The between-subjects variable was type of habituating stimulus (white triangle vs. yellow circle vs. blue rectangle), and the within-subjects variables were sessions (Session 1 to Session 4) and blocks of trials (Block 1 to Block 6). The trial block main effect was nonsignificant (F (5, 85) = 1.66, p = .15). There were no other significant effects (see Table 8, Appendix A). Table 9 (Appendix A) presents the results of a mixed factor analysis with the between-subjects variable order of presentation (Order 1 to Order 4), and the within-subjects variables sessions (Session 1 to Session 4) and blocks of

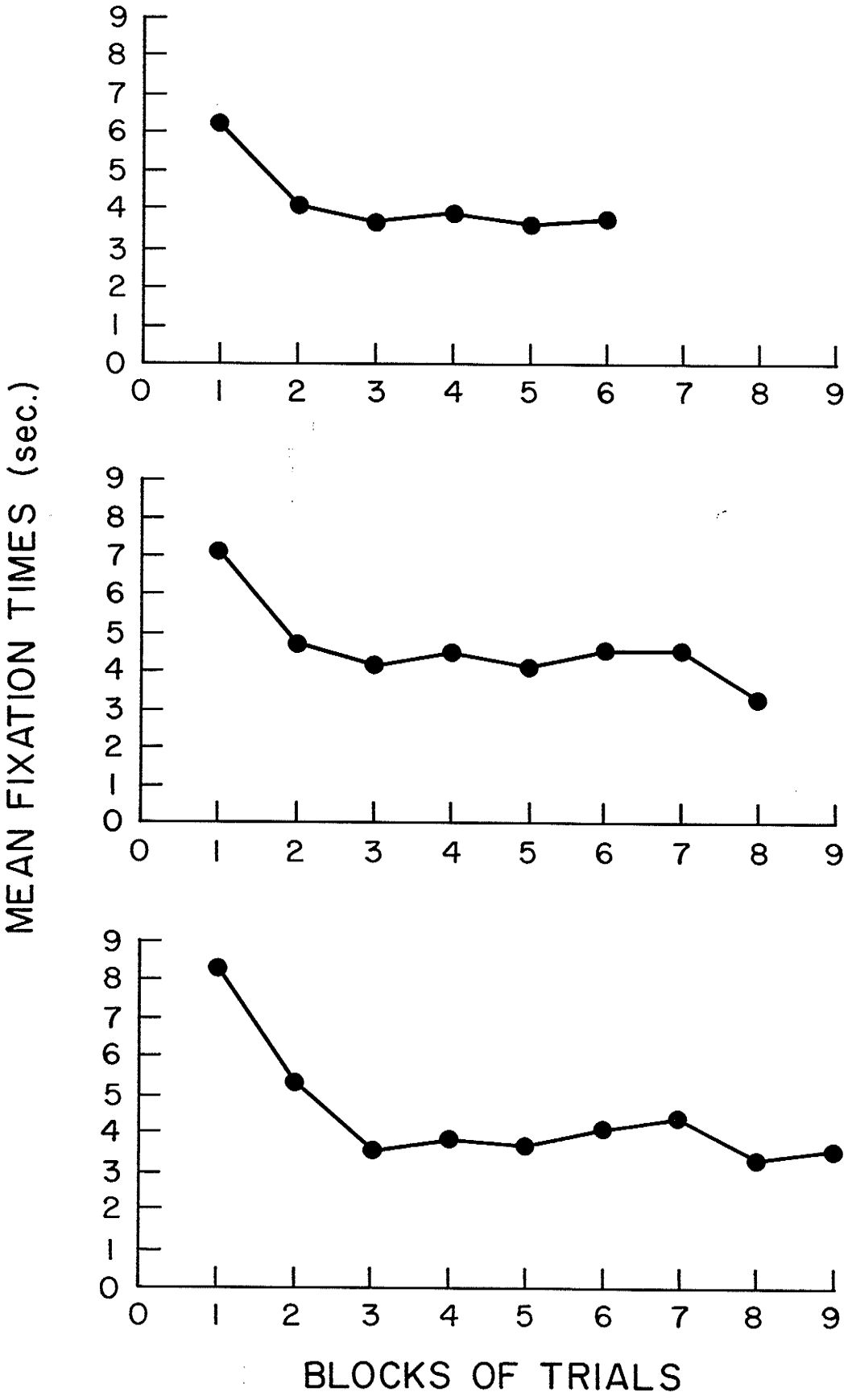
MEAN FIXATION TIMES (sec.)
0 1 2 3 4 5 6 7 8 9
BLOCKS OF TRIALS

Figure 1. Mean total fixation time per trial block for the first habituation phase. The top panel presents means for 6 blocks of trials obtained by collapsing across Conditions 1 to 4; the middle panel presents means for 8 blocks of trials obtained from Conditions 1 and 2 only; the bottom panel presents means for 9 blocks of trials obtained from Condition 1 or Condition 2 lag condition.

trials (Block 1 to Block 6). There were no significant effects.

For Condition 1 (AAA) and Condition 2 (AAB) the familiar stimulus was presented during the test phase, extending the familiarization phase to 16 trials (8 trial blocks) in the no lag condition and 18 trials (9 trial blocks) in the lag condition. These data were analyzed to assess the effect of additional exposure to the familiar stimulus (see Tables 10 and 11, Appendix A). There were no significant effects for blocks of trials in either the 16 trial condition (F (7, 119) = 1.08, p = .38) or the 18 trial conditon (F (8, 136) = .98, p = .46).

Test Phase

The data from the test phase were separated into three blocks of two trials based on the placement of the first test trial. For the no lag condition, trials 11 through 16 were used; for the lag condition, trials 13 through 18 were used. A mixed analysis of variance was performed with type of stimulus (white triangle vs. yellow circle vs. blue rectangle) as the between-subjects factor, and stimulus change (familiar stimulus vs. novel stimulus), lag (no lag vs. lag), and blocks of trials (Block 1 vs. Block 2 vs. Block 3) as within-subject factors. Stimulus change in this analysis refers to the presentation of a familiar or a novel

stimulus during the last two blocks of this phase. The results of this analysis are presented in Table 12 (Appendix A). A significant Stimulus Change x Blocks of Trials interaction was found, F (2, 34) = 4.20, p = .02. The test phase data were also subjected to a mixed factor analysis of variance with order of presentation (Order 1 to Order 4) as the between-subjects variable, and stimulus change (familiar stimulus vs. novel stimulus), lag (no lag vs. lag), and blocks of trials (Block 1 vs. Block 2 vs. Block 3) as within-subjects variables. The results of this analysis appear in Table 13 (Appendix A). No significant effects for order of presentation of conditions were found.

The means involved in the Stimulus Change x Blocks of Trials interaction (see Table 3) were probed using Tukey's HSD paired comparisons procedure (Kirk, 1982). The Tukey HSD critical difference (p = .05) was .96 seconds. A significant difference in fixation time between the Last-2 trial block and the Last-1 trial block was found for both the no change and the change conditions. A decrease in fixation time occurred for the no change condition (familiar stimulus) over these two blocks of trials; whereas an increase in fixation time was found for the change condition (novel stimulus) in block Last-1. Fixation times for the Last-1 trial block in the no change condition were significantly shorter than fixation times for the Last-1

Table 3
Test Phase Means on Last-2, Last-1 and Last Trial Blocks

	Last-2	Last-1	Last
No Change	4.70	3.38	3.33
Change	3.03	5.35	3.64

Note: Tukey HSD critical value = .96 seconds for $p < .05$

trial block in the change condition (novel stimulus). The difference in fixation times between the no change and change conditions for the Last-2 blocks was also significant. For the change condition, there was a significant reduction in fixation times from the Last-1 trial block to the Last trial block. This difference was not significant for the no change condition.

Postdelay Habituation Phase

The results of the mixed factor analysis of variance of postdelay fixation times are presented in Table 14 (Appendix A). The between-subjects factor was order of presentation (Order 1 to Order 4). The within-subjects factors were condition (Condition 1 to Condition 4) and Blocks of Trials (Block 1 to Block 6). The main effect for Condition approached significance (F = 2.57, p = .065). This effect was probed using Tukey's HSD paired comparisons procedure. The Tukey HSD critical difference (p = .05) was 1.36 seconds. The difference between Condition 1 (AAA) and Condition 2 (AAB) means approached significance (1.29 seconds). Condition 2 fixation times were longer than Condition 1 fixation times (means = 3.62 and 4.91 for Condition 1 and 2 respectively). Condition 3 (ABA) and Condition 4 (ABC) means were not significantly different (means = 3.89 and 3.11 respectively). The difference

between Condition 2 (AAB) and Condition 4 (ABC) fixation times was significant (means = 4.91 and 3.11, respectively), with higher fixation times occurring in Condition 2.

Activity Level

Activity level probes were taken before the first habituation trial (Probe 1), after the last test trial (Probe 2), before the first postdelay habituation trial (Probe 3), and after the last postdelay habituation trial (Probe 4). The mean amount of activity across all activity probes was 3.6 (3 is moderate activity, 4 is high activity). The mean activity scores for Probes 1 through 4 were 3.59, 3.65, 3.69, and 3.55, respectively. Activity level scores were analyzed using an analysis of variance for repeated measures, with the within-subjects variables sessions (Session 1 to Session 4) and activity probe (Probe 1 to Probe 4). There were no significant effects (see Table 15, Appendix A). The activity level data were also subjected to an analysis of variance for repeated measures using the within-subject factors condition (Condition 1 to Condition 4) and activity probe (Probe 1 to Probe 4) (see Table 16, Appendix A). Again, there were no significant main or interaction effects.

The intertrial interval was recorded as a second index of subject behavioral state. The intertrial interval was

defined as the length of the interval between the offset of fixation on one trial and the onset of fixation on the next trial. A within factor analysis of variance using the variables sessions (Session 1 to Session 4) and blocks of trials (Block 1 to Block 6) was conducted on habituation and postdelay habituation data. There were no significant effects in either the habituation or postdelay habituation phases (see Tables 17 and 18, Appendix A for habituation and postdelay, respectively).

Individual Differences

Habituation phase scores. Several measures of habituation phase performance were calculated for each subject. Separate scores were calculated for the initial habituation phase and the postdelay habituation phase. (a) Total amount of fixation scores for each session were obtained by summing fixation times over the habituation trials. (b) The trial having the longest total fixation time was located and defined as the position of the peak trial. (c) The amount of fixation on the peak trial (peak amount) was obtained. (d) The amount of habituation was defined as the difference in fixation time between the first and sixth habituation trial blocks divided by the fixation time for the first block of habituation trials. The mean of the amount of habituation scores for the four conditions was also obtained.

The data from the first habituation phase were assessed for stability. First habituation phase data were used because the same stimulus was used for these trials on all four sessions, and this phase was presented in the same way on each session regardless of experimental condition. Peak amounts for the four conditions were intercorrelated (see Table 4). There were significant correlations between these scores for the four conditions. Peak amount on Condition 1 was significantly correlated with peak amount on each of the other conditions. There was also a significant relationship between peak amount on Condition 3 and Condition 4. Peak amount in Condition 2 was significantly correlated with the Condition 1 score only. The intercorrelation of total fixation time scores for each condition also appear in Table 4. Total fixation time measures were significantly correlated across all conditions.

The stability of the position of the peak trial in the habituation series was examined. Only the correlation between the scores for the first and second condition was significant (see Table 5). The stability of the amount of habituation measures across sessions was also investigated. Intercorrelations of amount of habituation measures were not significant (see Table 5).

Relationships between habituation measures. Four measures of habituation (peak amount, peak trial, amount of

Table 4
Correlations of Peak Amount and Total Amount of Fixation

	PA 1	PA 2	PA 3	PA 4	Tot 1	Tot 2	Tot 3
PA 2	.38*						
PA 3	.85**	.26					
PA 4	.55**	.25	.73**				
Tot 1	.99**	.40*	.84**	.54**			
Tot 2	.74**	.81**	.59**	.40*	.79**		
Tot 3	.80**	.30	.97**	.75**	.80**	.62**	
Tot 4	.62**	.29	.83**	.95**	.61**	.47*	.87**

* p < .05
** p < .01

Note. PA = Peak Amount for Conditions 1 to 4
Tot = Total Amount of Fixation for Conditions 1 to 4

Table 5
Correlations of Position of Peak Trial and Amount of Habituation

	PT 1	PT 2	PT 3	PT 4	AMT 1	AMT 2	AMT 3
PT 2	.38*						
PT 3	-.06	.13					
PT 4	.08	.04	-.31				
AMT 1	-.46*	-.27	.11	-.13			
AMT 2	.05	-.62**	-.15	.18	.15		
AMT 3	-.04	.24	-.63**	.05	.34	-.20	
AMT 4	.33	.27	.50*	-.35	-.09	-.12	-.36

* $p < .05$
** $p < .01$

Note. PT = Position of the Peak Trial for Conditions 1 to 4
AMT = Amount of Habituation for Conditions 1 to 4

habituation, and total fixation) were examined yielding six possible interrelationships. Only within-condition correlations were examined.

(a) Peak amount and position of the peak trial were not significantly correlated (r = -.19, .19, -.10, -.07 for Sessions 1 to 4 respectively).

(b) Peak amount had an inconsistent relationship to amount of habituation. Peak amount in Conditions 1 and 3 had a nonsignificant negative relationship to amount of habituation for those conditions (r = -.18 and -.16, respectively). Peak amount and amount of habituation in Condition 2 were strongly, negatively correlated (r = -.64, $p < .01$), however peak amount and amount of habituation in Condition 4 had a significant positive relationship (r = .40 $p < .05$).

(c) Peak amount and total amount of fixation were significantly positively correlated in all four conditions (see Table 4).

(d) The amount of habituation for each condition had a significant negative relationship with position of the peak trial. The correlation coefficients for Conditions 1 to 4 were r = -.46, -.62, -.63, and -.35, respectively. The correlations for Conditions 1, 2 and 3 are significant ($p < .05$).

(e) Position of the peak trial was not significantly correlated with total amount of fixation (r = -.14, .08, -.13, and .05, for Conditions 1 to 4, respectively).

(f) Amount of habituation was not significantly correlated with total amount of fixation (r = -.25, -.27, -.17, and .30 for Conditions 1 to 4, respectively).

Memory scores and habituation measures. An immediate recognition memory score was calculated by subtracting the mean fixation time for the Last-1 test blocks in which the familiar stimulus was presented (Conditions 1 and 2), from the mean fixation time for the Last-1 test trial blocks in which a novel stimulus was presented (Conditions 3 and 4). Postdelay habituation data were used to calculate two delayed memory scores. One delay score (Delay 1) was obtained by subtracting the mean fixation time on the first postdelay block of trials in Conditions 1 (AAA) and 3 (ABA) from the mean fixation time on the first postdelay block of trials in Conditions 2 (AAB) and 4 (ABC). A second delayed memory score (Delay 2), based on two sessions for each subject, was obtained by subtracting the first block of postdelay trials in Condition 1 (AAA) from the first block of postdelay trials in Condition 2 (AAB). The Delay 2 measure is based on conditions in which only the habituating stimulus is presented prior to the delay test.

The results of a correlational analysis of memory scores and habituation variables are presented in Table 6. The immediate memory score was not significantly correlated with the Delay 1 memory score; however, it was significantly positively correlated with the Delay 2 memory score. The Delay 2 memory score was positively correlated with the Delay 1 memory score. Mean amount of habituation was positively correlated with immediate memory, however it was not significantly correlated with delayed memory.

Total amount of fixation during the habituation trials was not significantly correlated with immediate memory, but it was significantly positively correlated with delayed memory scores. Postdelay total amount of fixation was significantly positively correlated with immediate and delayed memory. Mean peak amount for habituation trials and postdelay habituation trials was not related to the immediate memory score, but it was positively correlated with delayed memory scores.

Subject characteristics and task performance. Subject characteristic variables were the subject's chronological age (CA), Bayley mental index raw score (BRS), and mean activity level. The intercorrelation of these three variables yielded no significant relationships (see Table 7). The subject characteristic variables were then intercorrelated with habituation and memory variables.

Table 6
Correlations of Memory Scores and Habituation Variables

	MEMORY SCORES		
	Immediate	Delay 1	Delay 2
Delay 1	.28		
Delay 2	.44*	.50*	
Amt of Hab	.70**	.00	.24
Tot Fix H1	.30	.48*	.86**
Tot Fix H2	.40*	.55*	.76**
Mean PA (H1)	.30	.47*	.87**
Mean PA (H2)	.31	.65**	.86**

* $p < .05$
** $p < .01$

Note. Amt = Amount
Hab = Habituation
H1 = Habituation Trials
H2 = Post Delay Habituation Trials
Tot Fix = Total Amount of Fixation
PA = Peak Amount

Table 7
Correlational Analysis of Subject Characteristics and Memory and Habituation Scores

	CA	BRS	Act Lev
BRS	.25		
Act Lev	-.29	-.08	
Immediate	-.45*	.22	-.12
Delay 1	.07	.14	-.50*
Delay 2	.06	-.30	-.42*
Amt of Hab	-.46*	-.47*	.05
Mean PA (H1)	.17	-.11	-.38*
Mean PA (H2)	.27	.06	-.43*
Tot Fix H1	.22	-.12	.36
Tot Fix H2	.23	-.03	.34

* $p < .05$

Note. CA = Chronological Age
BRS = Bayley Raw Score
Act Lev = Mean Activity Level
Amt of Hab = Amount of Habituation
H1 = Habituation Trials
H2 = Post Delay Habituation Trials
Tot Fix = Total Amount of Fixation

Chronological age was significantly negatively correlated with immediate memory and amount of habituation. The BRS was negatively related to amount of habituation. Mean activity level was significantly negatively correlated with delayed memory. It was also negatively related to the mean peak amount in both habituation and postdelay phases.

DISCUSSION

The present study investigated immediate and delayed visual recognition memory in nonambulatory, profoundly mentally retarded children through use of the habituation-dishabituation paradigm. In this paradigm, immediate recognition memory is inferred from greater visual attention to a novel stimulus than to the habituating stimulus following familiarization to the habituating stimulus. Delayed recognition memory is inferred from greater visual attention to a novel stimulus after an interval relative to the visual attention given to the habituating stimulus.

Immediate Recognition Memory

Subjects attended to a novel stimulus longer than to the habituating stimulus after repeated presentations of the habituating stimulus. Partial-lag data indicated that this increase in attention was independent of the trial on which the test phase began. Between-session comparisons of fixation during the first test block in the stimulus change and no change conditions revealed greater fixation in the stimulus change condition relative to the no change

condition. These results confirm that nonambulatory, profoundly mentally retarded children are capable of immediate visual recognition memory, a finding which has been reported elsewhere in the literature (e.g., Butcher, 1977; Kelman & Whiteley, 1986; Shepherd and Fagan, 1981; Switzky et al., 1979). A difference in fixation times to the novel and familiar stimulus was found for Block 1 but not Block 2 of the test phase. This finding suggests that the presentation of the novel stimulus may have interfered with memory for the habituating stimulus, reducing the response to novelty during the second test block.

In the present study habituation was not demonstrated over the habituation trials; however, evidence of immediate recognition memory for the habituating stimulus indicates that subjects did encode information about this stimulus during the habituation phase. Subsequent analyses indicated that even with 16 or 18 presentations of the habituating stimulus there was not a significant response decrement. Research with infants over 3 months of age has indicated that habituatation to the familiar stimulus is not necessary for the development of a memory trace for the familiar stimulus (Fagan, 1974), so the lack of a clear reponse decrement prior to the test phase does not mitigate the inference of immediate memory from response to novelty alone. It is the differential response to the habituating

stimulus and the novel stimulus that implies memory for the habituating stimulus.

Delayed Recognition Memory

This study adopted a savings methodology that has been useful for demonstrating delayed recognition memory in infants (e.g., Cornell, 1979; Martin, 1975). Under this procedure, delayed recognition memory is indicated when habituation occurs more rapidly to a previously familiarized stimulus than to a novel stimulus after a delay interval. In the present study, the presence of delayed recognition memory was investigated by presenting the habituating stimulus or a novel stimulus for 12 trials after a delay of 10 minutes. Analysis revealed a main effect for condition that approached significance ($p = .065$). As expected, there was a longer mean fixation time to the novel stimulus presented in Condition 2 (AAB) than to the habituating stimulus in Condition 1 (AAA), but this difference was not statistically significant. These results provide only weak support for the presence of recognition memory for simple geometric forms after a delay of 10 minutes in this sample of children.

There was no difference between Condition 3 (ABA) and Condition 4 (ABC), the second comparison that might have indicated delayed recognition memory. In these conditions,

however, the delayed test was preceded by an immediate memory test in which a novel stimulus was presented. The presentation of the novel stimulus may have interfered with memory for the habituating stimulus in the delay test. There was no difference in fixation time between Condition 1 (AAA), in which the habituating stimulus was presented on all trials, and Condition 3 (ABA), in which a novel stimulus was presented during the immediate test phase but the habituating stimulus was re-presented following the delay interval. If the novel stimulus presented on the immediate memory test interfered with memory for the habituating stimulus, Condition 3 (ABA) postdelay fixation times would have been expected to be longer than Condition 1 (AAA) postdelay fixation times. Thus, evidence for an interference effect is inconsistent, and this interpretation of the failure to find a difference between Condition 3 (ABA) and Condition 4 (ABC) is at best tentative.

An alternate explanation involves the fact that there is a shorter interval between the last presentation of the familiar stimulus and the first presentation of the postdelay test stimulus in Conditions 1 (AAA) and 2 (AAB) than there is for Conditions 3 (ABA) and 4 (ABC). The memory trace may not have persisted across this lengthened interval.

Postdelay fixation times in Condition 2 (AAB), in which a novel stimulus was presented during the postdelay phase only, were longer than in Condition 4 (ABC), in which a novel stimulus was presented during each phase. This difference may be attributable to increased experience with the class of geometric forms in Condition 4. A schema for geometric forms may have developed through exposure to two members of this class in predelay trials (Stimuli A and B), and habituation may then have generalized to the third member of this class (Stimulus C) presented during the postdelay habituation phase. A second explanation for the difference between Condition 2 (AAB) and Condition 4 (ABC) in postdelay fixation times may involve the relative novelty of the stimulus presented after the delay interval. For Condition 2 (AAB), Stimulus B was the subject's first experience with a novel stimulus after many exposures to the same habituating stimulus. In Condition 4 (ABC), Stimulus C is the second novel stimulus to which the subject is exposed, and it is presented after only four test trials with the first novel stimulus. The postdelay stimulus in Condition 2 (AAB) has greater relative novelty than the Condition 4 (ABC) postdelay stimulus, and thus may have elicited longer fixation times.

Habituation

There was no evidence of habituation in this study. There has been evidence for habituation in this population of children reported by other experimenters (e.g., Kelman & Whiteley, 1986; Krenn, 1986). In the present study, a subject-control procedure was employed, whereas these other studies employed a fixed-trial procedure. Only one previous study, Switzky et al. (1979), demonstrated habituation using a subject-control procedure with this population. However, the presence of a habituation effect was assured in Switzky et al.'s study through the use of an absolute decrement criterion. If subjects failed to meet criterion after 20 trials, they were dropped from the study. Six of the original sample of 18 subjects were dropped for this reason. Thus, Switzky et al. did not demonstrate a significant decline in looking times in an unselected group of subjects. The effectiveness of the subject-control procedure for demonstrating habituation in nonambulatory, profoundly mentally handicapped children must be questioned in the absence of evidence for habituation in the present study.

The subject-control method of presenting habituation trials permits the subject to determine the length of stimulus presentations by his or her attention to the stimulus. In this study, a trial was not started until the subject had attended to the screen, and a trial was not

terminated until there had been a fixation of at least .30 seconds. These restrictions established a minimum amount of fixation per trial, and fixation time could not drop below this minimum. In the fixed-trial procedure, there is no minimum amount of looking that defines a trial. Early in the habituation series there may be several long fixations on a single fixed trial; later in the habituation series, the subject may glance only briefly at the stimulus, or not fixate the stimulus at all during a trial. The lack of constraints on looking can produce more extreme total fixation times per trial in the fixed-trial procedure, and this greater range of possible scores may contribute to the detection of a response decrement over the habituation series.

The present study adopted the subject-control methodology because (a) it is sensitive to the attentive behavior of the subject, and (b) the subject-control procedure maximizes the opportunity for individual differences assessment. It is theoretically pleasing to begin a trial when the subject is oriented toward the stimulus, ensuring that the subject has the opportunity to fixate the stimulus at least once on every trial. However, the use of the single look criterion for stimulus offset appears rather arbitrary. The range of total fixation times over habituation trials (9.02 s to 363.93 s) indicates that the amount of processing time was

highly discrepant across subjects in the present study. Subjects who fixate the stimulus very briefly may not receive sufficient exposure to the stimulus to encode information. Subjects with ocularmotor deficits are particularily disadvantaged by the removal of the stimulus when a single fixation has ended. For these subjects, a look away may not signal diminished interest in the stimulus but difficulty in maintaining a fixation. The use of a single look criterion for a trial may be inappropriate for subjects with very brief fixation times.

Infancy reseachers have addressed the issue of equivalent encoding through the use of a decrement criterion for habituation. In the most popular approach, habituation is said to have occurred when the amount of fixation on any two consecutive habituation trials is 50% less than the amount of fixation on the first two trials. All subjects receive the familiar stimulus until they reach this criterion. Although the present study presented a preset number of habituation trials, the stability of a 50% decrement criterion for habituation was examined on the 12 habituation trials for each session. In 84% of habituation sessions, the amount of looking dropped by 50% of the first two looks during the 12 habituation trials. However, in 88% of these sessions, after the decrement criterion was met, a subsequent increase in fixation above the criterion value

was found. And, for only 11 of 20 subjects was this criterion reached on all four sessions. These results indicate that this criterion would not have represented a stable low level of looking. Other criteria, perhaps using different baseline measures such as the peak trial or using three trials rather than two for defining the decrement criterion, may improve the reliability of a criterion approach with this population of children.

Individual Differences

Individual differences in habituation and memory performance were examined to assess both the stability of individual difference measures over sessions and their relationship to one another. The total amount of fixation was highly stable across sessions. This stability suggests that attentiveness is similar from session to session for individual subjects. The amount of fixation on the peak trial was also stable across most pairs of sessions. The exceptions were the correlations between the Session 2 scores and scores on other sessions. It is not unexpected that peak amount of fixation, a single trial measure, is less stable than total amount of fixation, as the latter measure is based on 12 trials; what is surprising, is the remarkably stability of peak amount across sessions, with intersession correlations as high as r = .85. Stability of

these measures across sessions is consistent with individual difference research with infants which suggests that amount of fixation measures are a stable characteristic of infants' information processing (e.g., Bornstein & Benasich, 1986; Columbo et al., 1987; McCall, 1979). Infancy research has found stability over intertest intervals up to several months long. Consistency of these measures for this group of nonambulatory, profoundly mentally retarded subjects suggests that longer term assessment of fixation measures may also prove stable for this population.

Intercorrelations of peak amount and total amount of looking are high. This relationship may be partially due to the fact that total fixation time and peak amount are not independent. However, Columbo et al. (1986) found that when the influence of the peak amount in total amount of looking was controlled, good test-retest reliability was still found for total amount of looking.

Relationships between memory variables were also found. Immediate memory is positively correlated with Delay 2 memory scores, the two session delayed memory score, but not Delay 1, the four session delayed memory score. As the Delay 2 measure involves data from conditions in which only the habituating stimulus was presented on predelay trials, the Delay 2 score is not influenced by possible interference from test trial stimuli. The relationship between immediate

and delayed memory suggests that profoundly mentally retarded children who demonstrate immediate memory for a stimulus are more likely to remember the stimulus after a delay interval. Theoretically, it is to be expected that children who demonstrate superior initial encoding of the stimulus would be able to remember it over a longer interval.

The amount of attention to the stimulus, as indicated by total fixation time measures, is related to immediate and delayed memory, with greater amounts of fixation time being linked to the demonstration of both immediate and delayed memory. This finding is discrepant with findings from infancy studies in which greater amounts of fixation have been linked to an absence of response recovery (e.g., McCall, 1979) in decrement criterion studies. The relationship of amount of fixation and delayed recognition memory suggests that fixation time variables are important indicators of memory ability in this group of handicapped children. There is a strong relationship between amount of habituation and immediate memory. This finding is consistent with the view that habituation reflects encoding of the stimulus (e.g., Bornstein & Sigman, 1986; Olson & Sherman, 1983) because immediate memory for a stimulus is evidence for its encoding. Amount of habituation, however, is not related to delayed recognition memory, a finding

inconsistent with the view that habituation is a measure of encoding.

An effective way of clarifying the relationship of habituation to stimulus encoding would be to manipulate the amount of habituation to the stimulus subjects demonstrate by using different criteria of habituation. For example, memory performance of subjects habituated to 75%, 50% and 25% decrement criteria could be compared to investigate the relationship of habituation to stimulus encoding and recognition.

Subject characteristic variables yielded significant relationships with memory and habituation variables. Chronological age was negatively correlated with amount of habituation, indicating that older subjects showed a smaller response decrement during the habituation phase. This relationship is in contrast to Kelman and Whiteley's (1986) finding that habituation was not related to chronological age. Chronological age was negatively correlated with immediate memory. This result is consistent with Kelman and Whiteley's (1986) finding that chronological age is negatively correlated with amount of recovery to a novel stimulus.

Bayley scores are negatively correlated with amount of habituation, indicating that children with higher Bayley raw

scores show less response decrement. The nonsignificant relationship between Bayley raw scores and immediate memory found in the present study is consistent with previous research looking at the relationship of mental age and immediate memory (Kelman & Whiteley, 1986; Krenn, 1986).

Conclusions

The main purpose of the present study was to investigate nonambulatory, profoundly mentally retarded children's immediate and delayed recognition memory abilities. There was evidence for immediate recognition memory for simple, colored geometric forms, and weak evidence for delayed memory over a 10-minute interval. A secondary purpose of this study was to investigate measures of of individual differences in information processing and their relationships to memory performance. There was support for the stability of peak amount and total amount of fixation across sessions. These variables shared a high positive relationship with measures of immediate and delayed memory. Relationships between amount of habituation and position of peak trial were not stable across sessions. Relationships between these measures and immediate and delayed recognition memory were nonsignificant.

Based on the results of the present investigation, the use of the subject-control procedure for studying

habituation with nonambulatory, profoundly mentally retarded subjects seems questionable. The heterogeneity of this subject population advises against the use of a procedure that permits wide processing differences across subjects when group findings and group comparisons are desirable. However, if modifications to this procedure are made to equalize the learning opportunities for subjects with fixation patterns that are incompatible with a preset number of trials (e.g., many brief fixations), the usefulness of this method for demonstrating individual differences in information processing can be maximized. The use of equal total fixation times for all subjects or a greater number of habituation trials to ensure adequate exposure are possible modifications.

Future work on the information processing capabilities of these subjects should attempt to provide more solid evidence for delayed recognition memory in this population. A replication of Condition 1 (AAA) and Condition 2 (AAB) with two sessions of data for each condition would increase the power to detect a delay effect. The use of the relearning approach in this study was useful in demonstating a tendency for this group to show delayed recognition memory over a delay interval longer than those previously used. Adoption of a reinstatement approach in which the familiar stimulus is re-presented just prior to the delayed test may provide

an even more sensitive test of delayed memory ability. Further investigation is needed to clarify the role of habituation in profoundly mentally retarded children's information processing.

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APPENDIX A: ANALYSIS OF VARIANCE SOURCE TABLES

Table 8
Habituation Phase Data: Summary of Analysis of Variance on Type of Stimulus x Sessions x Blocks of Trials

Source	df	Mean Square	F	p
Type of Stimulus (T)	2	2.80	.68	.52
Error	17	4.11		
Sessions (S)	3	1.03	.18	.91
S x T	6	2.38	.41	.87
Error	51	5.84		
Blocks (B)	5	9.38	1.66	.15
B x T	10	9.62	1.70	.09
Error	85	5.65		
S x B	15	2.46	.83	.64
SB x T	30	2.33	.78	.78
Error	255	2.96		

Table 9
Habituation Phase Data: Summary of Analysis of Variance on Order of Presentation x Sessions x Blocks of Trials

Source	df	Mean Square	F	p
Order of Presentation (O)	3	2.15	.50	.69
Error	16	4.32		
Sessions (S)	3	1.08	.19	.91
S x O	9	3.62	.62	.77
Error	48	5.83		
Blocks (B)	5	7.65	1.26	.29
B x O	15	6.04	1.00	.47
Error	80	6.07		
S x B	15	2.40	.81	.66
SB x O	45	2.60	.88	.69
Error	240	2.95		

Table 10
Habituation Phase (8 blocks) Data: Summary of Analysis of Variance on Order of Presentation x Blocks of Trials

Source	df	Mean Square	F	p
Order of Presentation (O)	3	7.87	.20	.90
Error	16	4.01		
Blocks (B)	7	4.56	.80	.59
B x O	21	6.68	1.17	.29
Error	112	5.69		

Table 11
Habituation Phase (9 blocks) Data: Summary of Analysis of Variance on Order of Presentation x Blocks of Trials

Source	df	Mean Square	F	p
Order of Presentation (O)	3	1.30	.48	.70
Error	16	2.69		
Blocks (B)	8	4.76	.80	.61
B x O	24	7.56	1.27	.20
Error	128	5.98		

Table 12
Test Phase Data: Summary of Analysis of Variance on Type of Stimulus x Stimulus Change x Lag x Blocks of Trials

Source	df	Mean Square	F	p
Type of Stimulus (T)	2	8.99	.09	.92
Error	17	1.03		
Stimulus Change (Ch)	1	2.61	.32	.58
Ch x T	2	2.49	.31	.74
Error	17	8.16		
Lag (L)	1	0.61	.00	.96
L x T	2	5.52	.20	.82
Error	16	2.71		
Blocks (B)	2	1.60	.51	.60
B x T	4	1.73	.38	.82
Error	32	3.12		
Ch x L	1	.18	.00	.97
ChL x T	2	2.86	1.71	.21
Error	16	1.45		
Ch x B	2	7.80	4.20	.02
ChB x T	4	4.25	2.29	.08
Error	34	1.86		
L x B	2	3.35	0.18	.83
LB x T	4	1.35	0.74	.57
Error	34	1.82		
Ch x L x B	2	4.96	0.23	.79
CLB x T	4	4.07	0.19	.94
Error	34	2.14		

Table 13
Test Phase Data: Summary of Analysis of Variance on Order of Presentation x Stimulus Change x Lag x Blocks of Trials

Source	df	Mean Square	F	p
Order of Presentation (O)	3	3.97	.39	.77
Error	16	1.03		
Stimulus Change (Ch)	1	1.79	.24	.63
Ch x O	3	7.49	.99	.42
Error	16	7.58		
Lag (L)	1	.37	.02	.90
L x O	3	4.28	1.99	.16
Error	16	2.15		
Blocks (B)	2	1.47	.48	.63
B x O	6	1.95	.63	.71
Error	30	3.10		
Ch x L	1	.55	.03	.87
ChL x O	3	2.98	.14	.93
Error	16	3.10		
Ch x B	2	8.80	4.14	.03
ChB x O	6	2.01	.95	.47
Error	32	2.13		
L x B	2	4.97	0.26	.77
LB x O	6	9.83	0.51	.79
Error	32	1.92		
Ch x L x B	2	4.67	0.25	.78
CLB x O	6	2.37	1.26	.30
Error	32	1.88		

Table 14
Postdelay Habituation Data: Summary of Analysis of Variance on Order of Presentation x Condition x Blocks of Trials

Source	df	Mean Square	F	p
Order of Presentation (O)	3	1.40	.54	.66
Error	16	2.61		
Condition (C)	3	6.86	2.57	.065
C x O	9	3.73	1.40	.22
Error	48	2.67		
Blocks (B)	5	4.37	1.25	.29
B x O	15	2.93	.84	.63
Error	80	3.48		
C x B	15	1.76	1.07	.38
CB x O	45	2.08	1.27	.13
Error	225	1.64		

Table 15
Activity Level: Summary of Analysis of Variance on Sessions x Activity Probe

Source	df	Mean Square	F	p
Sessions (S)	3	.12	.51	.68
Error	57	.24		
Activity Probe (A)	3	.30	1.93	.13
Error	57	.16		
S x A	9	.11	.81	.53
Error	171	.14		

Table 16
Activity Level: Summary of Analysis of Variance on Conditions x Activity Probe

Source	df	Mean Square	F	p
Conditions (C)	3	.11	.47	.70
Error	57	.24		
Activity Probe (A)	3	.30	1.93	.13
Error	57	.16		
C x A	9	.10	.75	.66
Error	171	.14		

Table 17
Habituation Phase Intertrial Interval Data:
Summary of Analysis of Variance on Sessions x Blocks of Trials

Source	df	Mean Square	F	p
Sessions (S)	3	46.62	.20	.89
Error	57	230.81		
Blocks (B)	5	159.97	1.51	.19
Error	95	105.97		
S x B	15	158.40	1.45	.12
Error	285	109.26		

Table 18
Postdelay Phase Intertrial Interval Data:
Summary of Analysis of Variance on Sessions x Blocks of Trials

Source	df	Mean Square	F	p
Sessions (S)	3	948.98	1.24	.30
Error	57	765.31		
Blocks (B)	5	275.20	1.14	.34
Error	95	241.68		
S x B	15	319.91	.75	.73
Error	285	424.38		

APPENDIX B: RAW DATA

The data files were arranged in the following manner for each subject, with the 33 line sequence repeating four times for each subject:

Line 1: subject number; session number (1 to 4); chronological age in years, months; Bayley Raw Score; condition (1 to 4); lag (0 = no lag; 1 = lag); sex (1 = female; 2 = male); type of habituating stimulus (1 = white triangle; 2 = yellow circle; 3 = blue rectangle); order of presentation (1 to 4).

Line 2: total fixation time per trial (trials 1 to 9).

Line 3: number of fixations per trial (trials 1 to 9).

Line 4: mean fixation time per trial (trials 1 to 9).

Line 5: latency to first fixation per trial (trials 1 to 9).

Line 6: number of interfixation intervals greater than 1.5 sec per trial (trials 1 to 9).

Line 7: intertrial interval per trial (trials 1 to 9).

Line 8: total fixation time per trial (trials 10 to 18).

Line 9: number of fixations per trial (trials 10 to 18).

Line 10: mean fixation time per trial (trials 10 to 18).

Line 11: latency to first fixation per trial (trials 10 to 18).

Line 12: number of interfixation intervals greater than 1.5 sec per trial (trials 10 to 18).

Line 13: intertrial interval per trial (trials 10 to 18).

Line 14: probe 1 activity score (1 to 5)
probe 2 activity score (1 to 5); peak amount; position of the peak trial.

Line 15: total fixation time per test trial (trials 1 to 6).

Line 16: number of fixations per test trial (trials 1 to 6).

Line 17: mean fixation time per test trial (trials 1 to 6).

Line 18: latency to first fixation per test trial (trials 1 to 6).

Line 19: number of interfixation intervals greater than 1.5 sec per test trial (trials 1 to 6).

Line 20: intertrial interval per test trial (trials 1 to 6).

Line 21: total fixation time per postdelay trial (trials 1 to 6).

Line 22: number of fixations per postdelay trial (trials 1 to 6).

Line 23: mean fixation time per postdelay trial (trials 1 to 6).

Line 24: latency to first fixation per postdelay trial (trials 1 to 6).

Line 25: number of interfixation intervals greater than 1.5 sec per postdelay trial (trials 1 to 6).

Line 26: intertrial interval per postdelay trial (trials 1 to 6).

Line 27: total fixation time per postdelay trial (trials 7 to 12).

Line 28: number of fixations per postdelay trial (trials 7 to 12).

Line 29: mean fixation time per postdelay trial (trials 7 to 12).

Line 30: latency to first fixation per postdelay trial (trials 7 to 12).

Line 31: number of interfixation intervals greater than 1.5 sec per postdelay trial (trials 7 to 12).

Line 32: intertrial interval per postdelay trial (trials 7 to 12).

Line 33: probe 3 activity score (1 to 5)
probe 4 activity score (1 to 5); peak amount; position of the peak trial.

```
  1.00    1.00    6.92   32.00    1.00    0.00    1.00    3.00
1.00
  3.29    3.15    2.33    1.22    1.71    3.74    1.03    2.91
0.73
  3.00    1.00    1.00    1.00    2.00    1.00    1.00    2.00
1.00
  1.10    3.15    2.33    1.22    0.86    3.74    1.03    1.46
0.73
  2.07    0.00   10.81    1.17    0.44    0.00    3.90    0.00
1.14
  0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00
 11.38   21.91    9.72   12.32    8.11   11.71   27.45   13.75
19.15
  1.94    0.76    0.68    0.90    0.93    0.70    1.10    0.00
0.00
  3.00    1.00    1.00    1.00    1.00    1.00    1.00    0.00
0.00
  0.65    0.76    0.68    0.90    0.93    0.70    1.10    0.00
0.00
  7.18    2.51    0.00    4.01   38.08    3.80    1.14    0.00
0.00
  1.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00
 11.32   12.98   12.34   47.55   11.41   26.16  603.14    0.00
0.00
                                 4.00    4.00    3.74    6.00
  0.76    0.68    0.90    0.93    0.70    1.10
  1.00    1.00    1.00    1.00    1.00    1.00
  0.76    0.68    0.90    0.93    0.70    1.10
  2.51    0.00    4.01   38.08    3.80    1.14
  0.00    0.00    0.00    0.00    0.00    0.00
 12.98   12.34   47.55   11.41   26.16  603.14
  4.14    1.94    2.50    3.05    1.08    3.51
  1.00    3.00    2.00    1.00    1.00    2.00
  4.14    0.65    1.25    3.05    1.08    1.76
  3.12    2.20    1.22    0.23    9.83    1.20
  0.00    0.00    0.00    0.00    0.00    1.00
 13.94   20.44   20.44   21.88   18.43   11.48
  1.83    5.07    3.94    3.39    1.04    0.47
  2.00    3.00    2.00    3.00    1.00    1.00
  0.92    1.69    1.97    1.13    1.04    0.47
  7.21    0.97    0.00    5.45    5.90    3.37
  0.00    1.00    1.00    1.00    0.00    0.00
  9.08   13.92   51.42   14.17   12.85    0.00
         4.00    4.00    5.07   26.00
  1.00    2.00    6.92   32.00    2.00    1.00    1.00
  3.04    9.37    4.20    2.99    2.07    0.84    1.88    2.79
1.30
  3.00    2.00    3.00    2.00    1.00    1.00    2.00    3.00
1.00
```

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  1.01    4.69    1.40    1.50    2.07    0.84    0.94    0.93
1.30
  0.08    5.81    0.00    0.24    0.40    1.39   15.78    8.77
3.07
  2.00    1.00    1.00    1.00    0.00    0.00    1.00    2.00
0.00
 37.01    7.18    4.94    9.48   21.59   32.79   20.51    9.95
10.55
  0.32    2.56    1.04    2.85    5.20    0.10    2.54    4.67
1.02
  1.00    1.00    4.00    2.00    2.00    1.00    1.00    3.00
1.00
  0.32    2.56    0.26    1.43    2.60    0.10    2.54    1.56
1.02
  0.30    3.81    1.30    7.54    0.00    0.00    0.00    0.73
43.00
  0.00    0.00    1.00    0.00    0.00    0.00    0.00    1.00
0.00
 16.50   11.08   23.06   12.72    7.14    9.24   17.48   58.79
706.13
                                 4.00    4.00    9.37    2.00
  2.85    5.20    0.10    2.54    4.67    1.02
  2.00    2.00    1.00    1.00    3.00    1.00
  1.43    2.60    0.10    2.54    1.56    1.02
  7.54    0.00    0.00    0.00    0.73   43.00
  0.00    0.00    0.00    0.00    1.00    0.00
 12.72    7.14    9.24   17.48   58.79  706.13
 15.67    6.66    1.76    3.70    5.91    1.48
  2.00    2.00    1.00    2.00    4.00    1.00
  7.84    3.33    1.76    1.85    1.48    1.48
  6.18    0.00    0.40    7.70    0.47    0.46
  1.00    0.00    0.00    0.00    1.00    0.00
  3.94   10.72   43.41    7.63    5.46    8.91
  1.70    0.84    6.94    4.46    1.75    9.04
  1.00    1.00    6.00    2.00    2.00    2.00
  1.70    0.84    1.16    2.23    0.88    4.52
  0.50    0.00    1.87    3.70    0.00    3.14
  0.00    0.00    2.00    0.00    0.00    0.00
  8.27    9.64   11.75    9.12   12.80    0.00
          4.00    4.00   15.67   19.00
  1.00    3.00    6.92   32.00    3.00    0.00    1.00
 18.03    1.36    5.97    4.52    9.16    2.35    0.80    2.32
2.86
  3.00    1.00    2.00    2.00    2.00    2.00    1.00    2.00
3.00
  6.01    1.36    2.99    2.26    4.58    1.18    0.80    1.16
0.95
 66.93   17.89    6.14    4.32    0.00    2.27    0.33   15.69
0.10
  0.00    0.00    1.00    1.00    1.00    1.00    0.00    1.00
1.00
```

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 30.32   17.15   14.69   15.18   10.42    8.73   33.62   14.08
13.92
  0.70    0.23    1.44    3.73    5.14    1.23    0.16    0.00
0.00
  1.00    2.00    3.00    4.00    3.00    1.00    1.00    0.00
0.00
  0.70    0.12    0.48    0.93    1.71    1.23    0.16    0.00
0.00
  2.41    0.71    2.50    6.63    0.00    5.57    1.27    0.00
0.00
  0.00    1.00    2.00    2.00    1.00    0.00    0.00    0.00
0.00
 15.25   16.79   11.28   25.65   22.45   12.25  723.66    0.00
0.00
                                 2.00    4.00   18.03    1.00
  0.23    1.44    3.73    5.14    1.23    0.16
  2.00    3.00    4.00    3.00    1.00    1.00
  0.12    0.48    0.93    1.71    1.23    0.16
  0.71    2.50    6.63    0.00    5.57    1.27
  1.00    2.00    2.00    1.00    0.00    0.00
 16.79   11.28   25.65   22.45   12.25  723.66
  0.43    9.58    3.86    4.15    1.46    0.83
  1.00    4.00    3.00    1.00    1.00    1.00
  0.43    2.40    1.29    4.15    1.46    0.83
 12.01    0.00    0.00    0.00   13.18    0.00
  0.00    3.00    0.00    0.00    0.00    0.00
 28.60    9.64   27.43   33.82    9.82   43.15
  2.47    0.70    0.70    0.20    0.30    1.37
  1.00    1.00    1.00    1.00    1.00    2.00
  2.47    0.70    0.70    0.20    0.30    0.69
 33.20   17.64    0.23    9.14   31.46    0.37
  0.00    0.00    0.00    0.00    0.00    0.00
 43.34   12.21   22.76   40.34   14.58    0.00
          4.00    4.00    9.58   20.00
  1.00    4.00    6.92   32.00    4.00    1.00    1.00
  0.77    0.50    0.46    3.51    1.03    3.13    2.03    3.57
0.20
  1.00    1.00    1.00    1.00    1.00    2.00    2.00    3.00
1.00
  0.77    0.50    0.46    3.51    1.03    1.57    1.02    1.19
0.20
 12.62   14.31    0.88   10.75   16.57    0.00    0.33    5.54
4.40
  0.00    0.00    0.00    0.00    0.00    0.00    1.00    1.00
0.00
 35.19   15.99   25.09   38.78    7.28   12.22   14.30   11.08
47.62
  0.49    0.53    0.73    2.55    0.59    1.47    1.05    0.67
0.57
  1.00    1.00    1.00    1.00    1.00    2.00    1.00    1.00
1.00
```

```
  0.49   0.53   0.73   2.55   0.59   0.74   1.05   0.67
0.57
 34.45   1.88   0.18   1.93  13.98   0.17   0.53   0.00
17.25
  0.00   0.00   0.00   0.00   0.00   1.00   0.00   0.00
0.00
 11.52  14.89  48.17  38.67   9.79   6.60   8.50  26.35
573.47
                                  4.00   4.00   3.57   8.00
  2.55   0.59   1.47   1.05   0.67   0.57
  1.00   1.00   2.00   1.00   1.00   1.00
  2.55   0.59   0.74   1.05   0.67   0.57
  1.93  13.98   0.17   0.53   0.00  17.25
  0.00   0.00   1.00   0.00   0.00   0.00
 38.67   9.79   6.60   8.50  26.35 573.47
  1.44   2.72   2.93   1.38   1.92   0.45
  1.00   3.00   2.00   4.00   2.00   1.00
  1.44   0.91   1.47   0.35   0.96   0.45
  8.54   1.23   0.00   2.50   0.00   3.21
  0.00   2.00   1.00   1.00   0.00   0.00
  9.87  48.92  29.86  18.01  18.82  12.06
  0.40   1.73   2.14   1.80   1.30   5.53
  1.00   3.00   1.00   1.00   1.00   1.00
  0.40   0.58   2.14   1.80   1.30   5.53
  0.62   0.70   0.95   9.28   0.00   0.00
  0.00   1.00   0.00   0.00   0.00   0.00
 10.45  18.38  18.14  15.91  46.09   0.00
         4.00   4.00   5.53  30.00
  2.00   1.00  14.33  34.00   2.00   1.00   2.00   1.00
2.00
  4.72   2.30   3.96   6.59   1.59   3.97   2.42   6.78
1.70
  3.00   1.00   3.00   6.00   2.00   1.00   2.00   4.00
1.00
  1.57   2.30   1.32   1.10   0.80   3.97   1.21   1.70
1.70
  0.00   0.00  11.18   0.00   0.00   0.00   0.00   0.00
0.00
  0.00   0.00   2.00   1.00   0.00   0.00   0.00   1.00
0.00
  8.08  20.29  24.19  13.58  11.85   8.54  12.20   8.57
10.74
  3.75   7.45   6.41   1.86   2.84   3.07   1.13   1.41
8.73
  3.00   6.00   1.00   2.00   3.00   2.00   1.00   1.00
8.00
  1.25   1.24   6.41   0.93   0.95   1.54   1.13   1.41
1.09
  0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
10.07
  2.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
1.00
```

```
  4.90   10.07    7.81   10.67    7.57    9.31   15.82   23.31
492.46
                                  3.00    3.00    7.45   11.00
  1.86    2.84    3.07    1.13    1.41    8.73
  2.00    3.00    2.00    1.00    1.00    8.00
  0.93    0.95    1.54    1.13    1.41    1.09
  0.00    0.00    0.00    0.00    0.00   10.07
  0.00    0.00    0.00    0.00    0.00    1.00
 10.67    7.57    9.31   15.82   23.31  492.46
  3.02    4.57    3.97    1.67    1.53    8.24
  2.00    1.00    2.00    1.00    1.00    2.00
  1.51    4.57    1.99    1.67    1.53    4.12
  0.00    0.00    0.00    0.00   26.52    0.00
  0.00    0.00    1.00    0.00    0.00    0.00
 12.71   14.99   12.01   39.19   11.96   10.95
  1.57    2.07    1.58    1.84    9.01    5.98
  1.00    3.00    1.00    2.00    3.00    4.00
  1.57    0.69    1.58    0.92    3.00    1.50
  0.00    0.24    0.00    3.04    0.00    0.00
  0.00    1.00    0.00    1.00    1.00    0.00
 11.71    5.84   18.05    8.34    6.03    0.00
          3.00    2.00    9.01   21.00
  2.00    2.00   14.33   34.00    3.00    1.00    2.00
  1.66    0.54    0.61    0.40    0.70    0.14    0.23    0.49
1.88
  2.00    1.00    1.00    1.00    1.00    1.00    1.00    1.00
3.00
  0.83    0.54    0.61    0.40    0.70    0.14    0.23    0.49
0.63
  6.14    0.40    1.73    3.67    0.64   37.76    0.70    0.41
0.00
  0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00
  9.01   25.39   33.49   12.32   47.10    9.38   19.96   27.00
8.78
  3.73    0.79    1.90    2.00    0.91    3.98    1.64    4.45
0.58
  3.00    2.00    5.00    3.00    1.00    3.00    3.00    2.00
1.00
  1.24    0.40    0.38    0.67    0.91    1.33    0.55    2.23
0.58
  0.00    0.00    7.05    2.16    0.00    0.30    0.00    1.06
0.00
  1.00    1.00    0.00    0.00    0.00    1.00    0.00    1.00
0.00
  6.11   16.79    9.43   12.99   20.08    9.05   12.35   21.08
721.95
                                  2.00    3.00    3.73   10.00
  2.00    0.91    3.98    1.64    4.45    0.58
  3.00    1.00    3.00    3.00    2.00    1.00
  0.67    0.91    1.33    0.55    2.23    0.58
  2.16    0.00    0.30    0.00    1.06    0.00
  0.00    0.00    1.00    0.00    1.00    0.00
```

12.99	20.08	9.05	12.35	21.08	721.95		
1.42	0.59	0.71	0.66	1.30	0.72		
2.00	2.00	1.00	1.00	3.00	1.00		
0.71	0.30	0.71	0.66	0.43	0.72		
0.40	1.84	1.82	0.00	0.70	34.26		
0.00	1.00	0.00	0.00	2.00	0.00		
19.83	17.34	31.21	17.02	48.87	23.61		
3.17	1.45	2.12	0.94	2.35	1.60		
5.00	1.00	3.00	1.00	4.00	1.00		
0.63	1.45	0.71	0.94	0.59	1.60		
13.68	0.00	5.67	0.00	1.40	0.00		
2.00	0.00	2.00	0.00	3.00	0.00		
10.57	15.50	8.26	13.38	17.65	0.00		
	3.00	3.00	3.17	25.00			
2.00	3.00	14.33	34.00	4.00	0.00	2.00	
1.97	2.99	1.24	1.06	0.87	2.22	1.77	2.17
0.56							
3.00	2.00	4.00	3.00	2.00	3.00	1.00	1.00
1.00							
0.66	1.50	0.31	0.38	0.44	0.74	1.77	2.17
0.56							
0.37	0.00	0.00	0.72	1.43	0.00	0.00	20.22
1.44							
0.00	1.00	3.00	1.50	0.00	0.00	0.00	0.00
0.00							
8.41	8.84	22.49	23.31	24.12	10.47	30.39	16.96
36.97							
3.79	1.77	1.76	2.50	1.70	12.18	2.16	0.00
0.00							
2.00	2.00	1.00	2.00	2.00	7.00	2.00	0.00
0.00							
1.90	0.89	1.76	1.25	0.85	1.74	1.08	0.00
0.00							
11.84	0.00	0.83	0.00	0.00	1.40	0.62	0.00
0.00							
1.00	0.00	0.00	0.00	1.00	0.00	1.00	0.00
0.00							
9.28	11.12	9.11	7.74	10.67	11.01	710.09	0.00
0.00							
				3.00	3.00	3.79	10.00
1.77	1.76	2.50	1.70	12.18	2.16		
2.00	1.00	2.00	2.00	7.00	2.00		
0.89	1.76	1.25	0.85	1.74	1.08		
0.00	0.83	0.00	0.00	1.40	0.62		
0.00	0.00	0.00	1.00	0.00	1.00		
11.12	9.11	7.74	10.67	11.01	710.09		
6.29	2.57	4.20	3.44	0.91	1.64		
5.00	2.00	7.00	4.00	2.00	3.00		
1.26	1.29	0.60	0.86	0.46	0.55		
0.00	0.00	0.70	1.44	8.81	0.34		
2.00	0.00	4.00	3.00	1.00	2.00		
5.11	15.95	17.35	17.85	9.87	5.19		
4.90	0.80	2.45	2.27	2.80	2.20		

```
  2.00    1.00    2.00    2.00    2.00    4.00
  2.45    0.80    1.23    1.14    1.40    0.55
  0.00    0.00    0.83    0.00    0.17    0.30
  1.00    0.00    0.00    0.00    1.00    2.00
  6.80   11.94    9.37    9.24   11.08    0.00
         3.00    3.00    6.29   19.00
  2.00    4.00   14.33   34.00    1.00    0.00    2.00
  2.33    1.94    1.47    0.47    0.78    1.45    2.50    2.06
1.84
  1.00    2.00    1.00    1.00    1.00    3.00    3.00    3.00
2.00
  2.33    0.97    1.47    0.47    0.78    0.48    0.83    0.69
0.92
  0.20    0.30    0.00   14.28    0.00   13.02    0.00    0.00
0.00
  0.00    0.00    0.00    0.00    0.00    1.00    0.00    0.00
1.00
  8.55   12.91   33.00   11.31   26.35    4.78    6.81   34.47
16.98
  2.19    1.37    0.43    1.34    2.37    3.16    5.81    0.00
0.00
  1.00    2.00    1.00    1.00    1.00    2.00    1.00    0.00
0.00
  2.19    0.69    0.43    1.34    2.37    1.58    5.81    0.00
0.00
  1.00    3.07    0.00    0.30    8.91    0.08   20.06    0.00
0.00
  0.00    1.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00
 36.12    7.01   19.46   19.51   17.72   28.37  629.62    0.00
0.00
                                 4.00    4.00    2.50   10.00
  1.37    0.43    1.34    2.37    3.16    5.81
  2.00    1.00    1.00    1.00    2.00    1.00
  0.69    0.43    1.34    2.37    1.58    5.81
  3.07    0.00    0.30    8.91    0.08   20.06
  1.00    0.00    0.00    0.00    0.00    0.00
  7.01   19.46   19.51   17.72   28.37  629.62
  2.04    0.80    0.51    1.77    0.83    0.27
  3.00    1.00    2.00    5.00    1.00    1.00
  0.68    0.80    0.26    0.35    0.83    0.27
  0.00    0.10   43.77    0.00    0.00    4.59
  0.00    0.00    1.00    1.00    0.00    0.00
 23.96   56.82    8.70   16.45   19.20   33.86
  0.84    1.04    2.06    1.56    1.18    1.34
  1.00    3.00    1.00    4.00    2.00    3.00
  0.84    0.35    2.06    0.39    0.59    0.45
 19.99    0.27    0.00   67.76    0.04    0.20
  0.00    1.00    0.00    1.00    0.00    0.00
 15.11    8.55   77.64    4.32    8.31    0.00
         4.00    4.00    2.06   27.00
```

```
  3.00    1.00   18.17   71.00    3.00    1.00    2.00    2.00
3.00
  1.14    7.38   18.76    5.52    2.31    3.32    1.33   12.03
4.20
  1.00    2.00    8.00    3.00    1.00    3.00    2.00    6.00
3.00
  1.14    3.69    2.35    1.84    2.31    1.11    0.67    2.01
1.40
  0.26    0.00    0.00    0.00    0.20    0.00    0.00    0.50
0.37
  0.00    0.00    2.00    0.00    0.00    1.00    1.00    2.00
0.00
 10.01   12.04    8.47    8.78   15.35   13.77   22.55   11.12
10.02
  8.61    5.77    1.11    3.44    3.52   21.16   12.61    4.71
3.91
  7.00    6.00    2.00    2.00    3.00    8.00    5.00    5.00
3.00
  1.23    0.96    0.56    1.72    1.17    2.65    2.52    0.94
1.30
  0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00
  1.00    0.00    0.00    1.00    0.00    1.00    0.00    2.00
0.00
  8.98   10.11   16.04   11.38    7.48    8.28    7.41    7.07
597.06
                                   3.00    4.00   18.76    3.00
  3.44    3.52   21.16   12.61    4.71    3.91
  2.00    3.00    8.00    5.00    5.00    3.00
  1.72    1.17    2.65    2.52    0.94    1.30
  0.00    0.00    0.00    0.00    0.00    0.00
  1.00    0.00    1.00    0.00    2.00    0.00
 11.38    7.48    8.28    7.41    7.07  597.06
  2.67   11.08    1.84    4.92    5.03    1.06
  1.00   11.00    2.00    2.00    2.00    2.00
  2.67    1.01    0.92    2.46    2.52    0.53
  0.00    0.33    0.24    0.24    0.20    0.00
  0.00    1.00    0.00    0.00    0.00    1.00
  8.97    9.75   10.62   12.27    9.42    6.91
  6.57    7.51   13.32   43.78    8.56   18.41
  3.00    4.00   10.00   13.00    5.00    7.00
  2.19    1.88    1.33    3.37    1.71    2.63
  0.20    0.00    0.00    0.33    0.00    0.00
  1.00    1.00    1.00    0.00    1.00    0.00
  5.91   18.84    6.47    7.22    6.38    0.00
         3.00    4.00   43.78   28.00
  3.00    2.00   18.17   71.00    4.00    0.00    2.00
  5.98    2.24    4.06    3.23    6.59    0.91   12.32    9.98
8.74
  5.00    4.00    6.00    2.00    9.00    3.00    8.00    5.00
2.00
```

```
  1.20    0.56    0.68    1.62    0.73    0.30    1.54    2.00
4.37
  0.00    0.00    0.00    1.04    0.20    0.00    0.00    0.00
0.20
  1.00    1.00    1.00    0.00    1.00    0.00    1.00    2.00
0.00
  8.41    6.18   14.92    8.11    8.24    7.76    9.64    5.91
9.74
  3.18    2.26    4.44    6.49    9.86    1.64    2.38    0.00
0.00
  3.00    3.00    2.00    5.00    8.00    1.00    1.00    0.00
0.00
  1.06    0.75    2.22    1.30    1.23    1.64    2.38    0.00
0.00
  0.00    0.00    0.70    0.00    0.00    0.00    0.25    0.00
0.00
  1.00    2.00    1.00    0.00    1.00    0.00    0.00    0.00
0.00
  6.21    9.64    7.18    7.98   11.31   15.10  659.04    0.00
0.00
                                  3.00    3.00   12.32    7.00
  2.26    4.44    6.49    9.86    1.64    2.38
  3.00    2.00    5.00    8.00    1.00    1.00
  0.75    2.22    1.30    1.23    1.64    2.38
  0.00    0.70    0.00    0.00    0.00    0.25
  2.00    1.00    0.00    1.00    0.00    0.00
  9.64    7.18    7.98   11.31   15.10  659.04
  7.01   35.32    3.07    5.07   14.32    1.98
  1.00   13.00    3.00    3.00    8.00    3.00
  7.01    2.72    1.02    1.69    1.79    0.66
  0.50    0.00    0.00    0.16    0.00    0.13
  0.00    1.00    0.00    0.00    3.00    0.00
  8.27   10.52    8.47    9.91    5.82    7.88
  1.53    1.73    1.81    3.95    4.16   11.55
  1.00    3.00    2.00    3.00    4.00    5.00
  1.53    0.58    0.91    1.32    1.04    2.31
  0.00    0.00    0.00    0.00    0.30    0.00
  0.00    1.00    0.00    0.00    1.00    0.00
 12.32    8.82   10.93   11.27    8.61    0.00
          3.00    3.00   35.32   20.00
  3.00    3.00   18.17   71.00    1.00    1.00    2.00
  3.14    0.77    4.61    3.09    2.81    0.90    8.22   10.61
4.10
  2.00    1.00    3.00    3.00    3.00    2.00    5.00    5.00
3.00
  1.57    0.77    1.54    1.03    0.94    0.45    1.64    2.12
1.37
  0.00    0.00    0.00    0.00    0.00    0.91    0.00    0.00
0.00
  0.00    0.00    0.00    1.00    1.00    0.00    1.00    2.00
1.00
```

```
  6.45  15.21   7.81   4.34   5.24   7.55   7.08  10.18
4.55
  1.41   4.64  16.66  16.85   5.90  10.02  18.37   5.12
17.96
  4.00   3.00   4.00   7.00   6.00   5.00   8.00   7.00
5.00
  0.35   1.55   4.17   2.41   0.98   2.00   2.30   0.73
3.59
  0.00   0.00   0.00   0.00   0.01   0.50   0.00   0.00
0.00
  1.00   0.00   0.00   0.00   1.00   1.00   0.00   1.00
1.00
  4.27   8.67   7.21   7.54   6.61  19.68  14.99  14.35
634.52
                                   4.00   4.00  16.66  12.00
 16.85   5.90  10.02  18.37   5.12  17.96
  7.00   6.00   5.00   8.00   7.00   5.00
  2.41   0.98   2.00   2.30   0.73   3.59
  0.00   0.01   0.50   0.00   0.00   0.00
  0.00   1.00   1.00   0.00   1.00   1.00
  7.54   6.61  19.68  14.99  14.35 634.52
  5.87   0.93   5.71   4.14   3.75   6.36
  5.00   2.00   4.00   2.00   7.00   5.00
  1.17   0.47   1.43   2.07   0.54   1.27
  0.00   0.00   0.00   0.00   0.00   0.00
  1.00   0.00   0.00   1.00   0.00   1.00
  6.82   7.62  11.17   7.71   7.84   6.83
  2.64   4.35   0.72  13.60  19.21   8.66
  2.00   4.00   1.00   5.00   7.00   4.00
  1.32   1.09   0.72   2.72   2.74   2.17
  0.20   0.00   0.00   0.00   0.30   0.00
  0.00   1.00   0.00   2.00   0.00   1.00
 32.53   6.86  12.56   6.97   9.31   0.00
         3.00   3.00  19.21  29.00
  3.00   4.00  18.17  71.00   2.00   0.00   2.00
  0.80   1.92   1.70   2.06   1.25   0.46   4.84   1.85
0.90
  1.00   3.00   2.00   3.00   1.00   1.00   3.00   1.00
1.00
  0.80   0.64   0.85   0.69   1.25   0.46   1.61   1.85
0.90
  0.00   0.23   0.20   0.00   0.30   0.18   0.00   0.00
0.00
  0.00   1.00   0.00   1.00   0.00   0.00   1.00   0.00
0.00
  8.28   4.39  10.85   4.47   7.67   8.75  17.25  14.80
15.18
  7.64   2.07   2.11   5.34  11.23   1.97   7.33   0.00
0.00
  3.00   3.00   2.00   4.00   4.00   2.00   6.00   0.00
0.00
```

```
  2.55    0.69    1.06    1.34    2.81    0.99    1.22    0.00
0.00
  0.00    0.00    0.00    0.33    0.30    0.00    0.00    0.00
0.00
  1.00    2.00    0.00    1.00    0.00    0.00    2.00    0.00
0.00
  4.96    5.87    6.90    7.71   11.57    9.34  649.86    0.00
0.00
                                   3.00    4.00    7.64   10.00
  2.07    2.11    5.34   11.23    1.97    7.33
  3.00    2.00    4.00    4.00    2.00    6.00
  0.69    1.06    1.34    2.81    0.99    1.22
  0.00    0.00    0.33    0.30    0.00    0.00
  2.00    0.00    1.00    0.00    0.00    2.00
  5.87    6.90    7.71   11.57    9.34  649.86
 16.16    5.99    4.34    2.80    4.51    0.60
  3.00    6.00    5.00    1.00    2.00    1.00
  5.39    1.00    0.87    2.80    2.26    0.60
  0.00    0.00    0.00    0.26    0.00    0.00
  0.00    1.00    1.00    0.00    0.00    0.00
  7.53   18.09    5.03   20.53   12.15    9.57
  5.28   10.06   19.69   12.91    4.14    3.04
  6.00    2.00    8.00    4.00    3.00    2.00
  0.88    5.03    2.46    3.23    1.38    1.52
  0.00    1.50    0.00    0.00    0.00    0.00
  2.00    0.00    0.00    1.00    1.00    0.00
 11.38    8.88    7.44   23.46    8.84    0.00
          3.00    3.00   19.69   27.00
  4.00    1.00   10.08   66.00    4.00    1.00    1.00    3.00
4.00
  1.26    0.60    1.17    0.87    0.87    1.23    1.03    1.40
0.20
  2.00    1.00    1.00    1.00    1.00    2.00    3.00    1.00
1.00
  0.63    0.60    1.17    0.87    0.87    0.62    0.34    1.40
0.20
  0.00    0.60    0.00    0.83   12.97   15.08    0.53    0.03
11.51
  0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00
 11.77    8.65   32.76   22.82   43.21   53.18    6.78   31.90
9.17
  1.04    0.76    0.37    0.54    0.73    6.46    0.40    2.33
0.51
  1.00    1.00    1.00    2.00    1.00    2.00    2.00    2.00
1.00
  1.04    0.76    0.37    0.27    0.73    3.23    0.20    1.17
0.51
  0.43    0.00    2.37   17.35    0.44    6.80    9.21    0.00
0.00
  0.00    0.00    0.00    1.00    0.00    1.00    0.00    0.00
0.00
```

```
 54.66    9.31  113.01   40.98   34.50   28.65    9.38    5.70
717.31
                                 4.00    4.00    1.40    0.00
  0.54    0.73    6.46    0.40    2.33    0.51
  2.00    1.00    2.00    2.00    2.00    1.00
  0.27    0.73    3.23    0.20    1.17    0.51
 17.35    0.44    6.80    9.21    0.00    0.00
  1.00    0.00    1.00    0.00    0.00    0.00
 40.98   34.50   28.65    9.38    5.70  717.31
  1.85    4.57    0.60    1.53    1.33    1.80
  3.00    1.00    1.00    2.00    2.00    3.00
  0.62    4.57    0.60    0.77    0.67    0.60
  0.77    0.27    0.30    5.43    0.24    0.80
  1.00    0.00    0.00    1.00    0.00    1.00
  5.51    7.25   60.45    5.51   20.32    4.18
  0.57    0.53    2.17    0.92    1.80    0.77
  1.00    2.00    3.00    1.00    3.00    1.00
  0.57    0.27    0.72    0.92    0.60    0.77
  0.23   24.43    0.50    0.15   20.42   95.74
  0.00    1.00    1.00    0.00    0.00    0.00
 47.95   31.27   22.53   47.42  102.38    0.00
          4.00    4.00    4.57   20.00
  4.00    2.00   10.08   66.00    1.00    0.00    1.00
  2.06    0.30    1.21    1.47    2.43    3.17    0.91    2.23
0.34
  5.00    1.00    1.00    3.00    5.00    7.00    3.00    2.00
1.00
  0.41    0.30    1.21    0.49    0.49    0.45    0.30    1.12
0.34
  0.00    0.00    0.00    0.00    0.00    0.00    0.67    0.00
0.60
  0.00    0.00    0.00    0.00    0.00    1.00    1.00    0.00
0.00
 10.85   14.01   10.28   12.71   16.18   28.66    7.98    6.67
18.82
  0.57    1.45    3.24    0.24    0.77    0.49    1.24    0.00
0.00
  1.00    3.00    4.00    1.00    1.00    2.00    2.00    0.00
0.00
  0.57    0.48    0.81    0.24    0.77    0.25    0.62    0.00
0.00
  1.41    0.30    7.24    0.00    0.23   31.93    0.00    0.00
0.00
  0.00    2.00    3.00    0.00    0.00    1.00    0.00    0.00
0.00
 18.02   18.22    5.70    6.06   38.44   16.10  654.78    0.00
0.00
                                 4.00    4.00    3.24   12.00
  1.45    3.24    0.24    0.77    0.49    1.24
  3.00    4.00    1.00    1.00    2.00    2.00
  0.48    0.81    0.24    0.77    0.25    0.62
  0.30    7.24    0.00    0.23   31.93    0.00
  2.00    3.00    0.00    0.00    1.00    0.00
```

```
 18.22    5.70    6.06   38.44   16.10  654.78
  1.30    1.27    0.55    0.79    0.83    0.53
  2.00    3.00    2.00    1.00    1.00    1.00
  0.65    0.42    0.28    0.79    0.83    0.53
  5.21    2.70    0.48    0.50    0.67    0.57
  0.00    1.00    0.00    0.00    0.00    0.00
  8.01    7.18   10.45   21.13    6.18    8.38
  1.27    2.20    0.83    1.06    1.52    0.86
  3.00    2.00    2.00    2.00    3.00    1.00
  0.42    1.10    0.42    0.53    0.51    0.86
  0.34    0.07    1.10    0.24    0.43    0.50
  1.00    0.00    1.00    0.00    1.00    0.00
  5.24   15.75   26.30    7.57    8.47    0.00
         4.00    4.00    2.20   26.00
  4.00    3.00   10.08   66.00    2.00    1.00    1.00
  0.74    0.67    0.34    1.22    0.37    0.93    1.48    1.06
1.24
  1.00    1.00    1.00    2.00    1.00    1.00    2.00    3.00
2.00
  0.74    0.67    0.34    0.61    0.37    0.93    0.74    0.35
0.62
  0.63    0.27    0.66    0.00    0.00    3.51    0.00    0.00
1.59
  0.00    0.00    0.00    1.00    0.00    0.00    0.00    0.00
1.00
 12.01    8.37   21.71    7.06   17.95    8.74    8.04    7.06
37.70
  1.11    0.80    2.36    3.53    0.60    1.38    1.58    0.60
0.32
  1.00    1.00    5.00    4.00    1.00    1.00    2.00    1.00
1.00
  1.11    0.80    0.47    0.88    0.60    1.38    0.79    0.60
0.32
  0.00    4.81   34.57    0.44    0.27    0.00   12.57    9.07
0.42
  0.00    0.00    3.00    1.00    0.00    0.00    1.00    0.00
0.00
 12.07   40.94   15.39    5.85    5.26   30.12   23.02    7.46
714.53
                                 4.00    4.00    2.36   12.00
  3.53    0.60    1.38    1.58    0.60    0.32
  4.00    1.00    1.00    2.00    1.00    1.00
  0.88    0.60    1.38    0.79    0.60    0.32
  0.44    0.27    0.00   12.57    9.07    0.42
  1.00    0.00    0.00    1.00    0.00    0.00
  5.85    5.26   30.12   23.02    7.46  714.53
  1.08    0.50    1.15    0.69    0.33    0.11
  2.00    1.00    2.00    1.00    1.00    1.00
  0.54    0.50    0.58    0.69    0.33    0.11
  0.60    0.00    0.86    1.47    1.17    1.60
  0.00    0.00    0.00    0.00    0.00    0.00
  8.43   30.43   10.08   17.97   10.54   10.23
  1.30    4.34    1.79    1.27    0.27    2.51
```

```
  1.00    6.00    2.00    2.00    1.00    3.00
  1.30    0.72    0.90    0.64    0.27    0.84
  1.93    1.14    0.00    1.80    2.66    0.60
  0.00    1.00    1.00    0.00    0.00    0.00
 10.19    9.03   22.36   22.99    6.71    0.00
          4.00    4.00    4.34   26.00
  4.00    4.00   10.08   66.00    3.00    0.00    1.00
  0.47    1.08    0.55    0.33    0.93    0.60    1.70    0.30
0.93
  1.00    1.00    1.00    1.00    1.00    1.00    5.00    1.00
2.00
  0.47    1.08    0.55    0.33    0.93    0.60    0.34    0.30
0.47
  4.88    0.86    0.00   10.61    0.47    0.00    0.63    0.87
7.71
  0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
1.00
 10.40    6.23   20.04    7.24    6.81    6.71    7.77   13.68
21.42
  0.14    1.46    0.24    0.80    1.82    1.97    3.55    0.00
0.00
  1.00    1.00    2.00    1.00    2.00    2.00    3.00    0.00
0.00
  0.14    1.46    0.12    0.80    0.91    0.99    1.18    0.00
0.00
  5.41    0.17    0.40    0.90    0.40    0.00    0.00    0.00
0.00
  0.00    0.00    0.00    0.00    0.00    1.00    0.00    0.00
0.00
  9.34    5.48   19.15   24.59    5.76    4.90  672.09    0.00
0.00
                                  4.00    4.00    1.70    7.00
  1.46    0.24    0.80    1.82    1.97    3.55
  1.00    2.00    1.00    2.00    2.00    3.00
  1.46    0.12    0.80    0.91    0.99    1.18
  0.17    0.40    0.90    0.40    0.00    0.00
  0.00    0.00    0.00    0.00    1.00    0.00
  5.48   19.15   24.59    5.76    4.90  672.09
  2.53    0.97    0.36    0.43    2.84    2.23
  3.00    2.00    1.00    1.00    3.00    5.00
  0.84    0.49    0.36    0.43    0.95    0.45
  0.00    5.44    6.45    0.40    0.00    0.70
  1.00    1.00    0.00    0.00    1.00    0.00
 12.25   19.13   13.98    5.78   13.93   26.99
  0.67    0.70    0.72    1.10    0.43    0.39
  2.00    1.00    2.00    2.00    1.00    1.00
  0.34    0.70    0.36    0.55    0.43    0.39
  0.36    2.50   18.32    0.00    0.00    2.40
  0.00    0.00    0.00    0.00    0.00    0.00
 15.85   26.46    5.60    5.14   10.21    0.00
          4.00    4.00    2.84   23.00
```

```
  5.00    1.00   10.50   42.00    1.00    1.00    1.00    1.00
1.00
 11.39    2.64    4.50    2.68    0.50    0.30    0.79    0.87
0.81
  5.00    3.00    2.00    3.00    1.00    1.00    2.00    2.00
2.00
  2.28    0.88    2.25    0.89    0.50    0.30    0.40    0.44
0.41
  0.00    0.00    0.00    0.20    1.26    0.81    0.00    0.24
0.00
  1.00    0.00    0.00    1.00    0.00    0.00    1.00    1.00
0.00
 17.68   32.47   23.06   23.04   17.50   27.39   16.93   12.38
15.65
  0.97    1.47   10.74    1.70    0.17    1.15    1.77    0.80
0.51
  1.00    2.00    3.00    1.00    1.00    1.00    2.00    2.00
1.00
  0.97    0.74    3.58    1.70    0.17    1.15    0.89    0.40
0.51
  0.00    7.65    0.34   80.09    1.10    0.00    0.00   19.29
0.00
  0.00    0.00    1.00    0.00    0.00    0.00    0.00    1.00
0.00
 33.80   22.89  102.08   12.04   16.71   20.94   71.01   16.68
764.66
                                 4.00    4.00   11.39    1.00
  1.70    0.17    1.15    1.77    0.80    0.51
  1.00    1.00    1.00    2.00    2.00    1.00
  1.70    0.17    1.15    0.89    0.40    0.51
 80.09    1.10    0.00    0.00   19.29    0.00
  0.00    0.00    0.00    0.00    1.00    0.00
 12.04   16.71   20.94   71.01   16.68  764.66
  2.07    2.27    1.20    0.55    0.82    0.30
  2.00    3.00    2.00    1.00    1.00    1.00
  1.04    0.76    0.60    0.55    0.82    0.30
  0.14    0.00    0.00    0.00    0.97    0.17
  1.00    0.00    0.00    0.00    0.00    0.00
 14.61   10.80   13.78   28.08   15.23   23.52
  0.34    1.63    6.39    5.01    0.23    3.05
  1.00    1.00    4.00    3.00    1.00    2.00
  0.34    1.63    1.60    1.67    0.23    1.53
 13.00    0.70    1.13    0.10    0.00    0.50
  0.00    0.00    0.00    0.00    0.00    1.00
 16.08   23.86    7.24   31.87   22.08    0.00
          3.00    3.00    6.39   27.00
  5.00    2.00   10.50   42.00    2.00    0.00    1.00
  6.81    6.84    4.04    9.40    2.24    1.11   13.14    7.49
0.58
  2.00    2.00    3.00    9.00    2.00    3.00    5.00    6.00
2.00
```

```
  3.41   3.42   1.35   1.04   1.12   0.37   2.63   1.25
0.29
  0.00   0.00   0.00  17.85  11.48   1.45   0.00   0.00
0.00
  0.00   0.00   0.00   0.00   0.00   1.00   1.00   0.00
0.00
  8.81  10.64  27.53  36.79   9.58  12.11  69.28   4.74
53.14
  3.96   1.49  84.92   0.57   1.17   0.83   0.28   0.00
0.00
  3.00   2.00  13.00   1.00   2.00   1.00   1.00   0.00
0.00
  1.32   0.75   6.53   0.57   0.59   0.83   0.28   0.00
0.00
  0.00   0.23   6.41   0.00   0.43   0.00   0.17   0.00
0.00
  0.00   1.00   2.00   0.00   1.00   0.00   0.00   0.00
0.00
  8.47  15.25   7.27  26.43   9.41  14.25 666.12   0.00
0.00
                                    3.00   3.00  84.92  12.00
  1.49  84.92   0.57   1.17   0.83   0.28
  2.00  13.00   1.00   2.00   1.00   1.00
  0.75   6.53   0.57   0.59   0.83   0.28
  0.23   6.41   0.00   0.43   0.00   0.17
  1.00   2.00   0.00   1.00   0.00   0.00
 15.25   7.27  26.43   9.41  14.25 666.12
 10.44   6.06   1.46   1.78   4.01   1.16
  1.00   5.00   1.00   1.00   3.00   2.00
 10.44   1.21   1.46   1.78   1.34   0.58
  0.00   0.00   0.00   0.00   0.00   0.00
  0.00   0.00   0.00   0.00   1.00   0.00
  4.91  39.20   7.21   9.30  11.07  34.56
  1.78   0.93   1.84   1.34   1.27   2.88
  1.00   1.00   1.00   2.00   1.00   2.00
  1.78   0.93   1.84   0.67   1.27   1.44
  0.00   0.00   0.00   0.40   0.00  59.55
  0.00   0.00   0.00   0.00   0.00   0.00
 11.44   6.01  14.35   9.07  67.76   0.00
         4.00   4.00  10.44  19.00
  5.00   3.00  10.50  42.00   3.00   0.00   1.00
  4.76   2.00   0.91   2.13   1.73   1.00   6.73   2.07
2.10
  3.00   1.00   1.00   2.00   2.00   1.00   2.00   2.00
1.00
  1.59   2.00   0.91   1.07   0.87   1.00   3.37   1.04
2.10
  0.00   0.20   0.00   1.70   0.00   0.24   0.00   0.00
0.00
  0.00   0.00   0.00   1.00   0.00   0.00   0.00   0.00
0.00
```

```
  9.71    9.81   11.67    4.80   30.17   13.31    7.08    6.24
13.24
  1.64    0.34    0.76    7.26    3.62    1.88    4.07    0.00
0.00
  2.00    1.00    1.00    3.00    3.00    4.00    4.00    0.00
0.00
  0.82    0.34    0.76    2.42    1.21    0.47    1.02    0.00
0.00
  2.23    0.17    0.00    0.47    0.26    0.17    0.00    0.00
0.00
  1.00    0.00    0.00    0.00    0.00    1.00    0.00    0.00
0.00
 14.15   25.25    7.85    4.97   14.18    7.44  683.30    0.00
0.00
                                 4.00    4.00    6.73    7.00
  0.34    0.76    7.26    3.62    1.88    4.07
  1.00    1.00    3.00    3.00    4.00    4.00
  0.34    0.76    2.42    1.21    0.47    1.02
  0.17    0.00    0.47    0.26    0.17    0.00
  0.00    0.00    0.00    0.00    1.00    0.00
 25.25    7.85    4.97   14.18    7.44  683.30
  4.24    1.74    1.97    3.86    0.93    1.01
  4.00    2.00    3.00    4.00    2.00    1.00
  1.06    0.87    0.66    0.97    0.47    1.01
  0.07    0.63    0.33    0.00    0.00    0.00
  0.00    0.00    1.00    0.00    0.00    0.00
  9.04    6.90    9.61    8.84    7.68   24.38
  0.88    0.75    0.33    2.07    0.73    0.80
  2.00    3.00    1.00    4.00    1.00    3.00
  0.63    0.25    0.33    0.52    0.73    0.27
  3.72    7.43    0.20    1.60    0.00    0.00
  0.00    0.00    0.00    3.00    0.00    0.00
 20.73   17.08   24.83    7.51    9.48    0.00
          4.00    3.00    4.24   19.00
  5.00    4.00   10.50   42.00    4.00    1.00    1.00
  7.19    0.63    0.57    4.12    3.55    2.67    3.13    1.97
4.84
  5.00    1.00    1.00    3.00    3.00    1.00    2.00    3.00
3.00
  1.44    0.63    0.57    1.37    1.18    2.67    1.57    0.66
1.61
  0.00    0.23    1.11    0.00    0.00    0.76    0.00    0.00
8.69
  0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00
  8.04   12.71   16.78   14.08   13.34    9.81   15.30   28.87
3.44
  1.03    2.84    0.97    1.37    8.19    1.03    4.55    1.43
2.72
  1.00    2.00    1.00    1.00    8.00    1.00    3.00    1.00
3.00
```

```
  1.03   1.42   0.97   1.37   1.02   1.03   1.52   1.43
0.91
  0.00   0.00   0.00   0.00   0.00   1.23   0.00   0.00
0.37
  0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
1.00
  7.18   6.97   8.11   7.10  10.98  12.42  14.95   8.68
611.30
                                    3.00   3.00   7.19   1.00
  1.37   8.19   1.03   4.55   1.43   2.72
  1.00   8.00   1.00   3.00   1.00   3.00
  1.37   1.02   1.03   1.52   1.43   0.91
  0.00   0.00   1.23   0.00   0.00   0.37
  0.00   0.00   0.00   0.00   0.00   1.00
  7.10  10.98  12.42  14.95   8.68 611.30
  3.45   3.05   1.81   2.37   0.57   1.36
  3.00   3.00   4.00   4.00   1.00   1.00
  1.15   1.02   0.45   0.59   0.57   1.36
  0.14   0.00   0.00   0.36   0.13   2.41
  0.00   1.00   1.00   1.00   0.00   0.00
 13.44   9.37   7.34   3.52  10.38  15.39
  0.45   3.47   7.82   1.63   1.12   1.10
  2.00   5.00   9.00   2.00   3.00   1.00
  0.23   0.69   0.87   0.82   0.37   1.10
  0.00   0.07   2.33   0.00   0.00   0.00
  0.00   0.00   1.00   0.00   0.00   0.00
 38.80  11.38  18.25  20.68   5.37   0.00
         4.00   3.00   7.82  27.00
  6.00   1.00  12.92  52.00   2.00   0.00   1.00   2.00
2.00
 22.89   2.36   2.00   1.70   5.44   1.94   1.13   1.77
3.67
  5.00   2.00   1.00   1.00   1.00   1.00   1.00   1.00
3.00
  4.58   1.18   2.00   1.70   5.44   1.94   1.13   1.77
1.22
  0.00   1.08   0.20   0.40   1.84   0.33   0.00   0.00
0.00
  0.00   1.00   0.00   0.00   0.00   0.00   0.00   0.00
1.00
 10.72   4.97   7.38   8.91   8.77  10.81   7.24  12.58
7.19
  5.49   2.23   2.22   1.61   1.13   0.24   1.83   0.00
0.00
  4.00   2.00   2.00   1.00   1.00   1.00   2.00   0.00
0.00
  1.37   1.12   1.11   1.61   1.13   0.24   0.92   0.00
0.00
  1.16   0.20   0.87   0.40   0.43   0.00   0.50   0.00
0.00
  0.00   0.00   1.00   0.00   0.00   0.00   1.00   0.00
0.00
```

```
 10.64    6.58    4.10   11.17    6.31   10.37  688.02    0.00
0.00
                                  4.00    4.00   22.89    1.00
  2.23    2.22    1.61    1.13    0.24    1.83
  2.00    2.00    1.00    1.00    1.00    2.00
  1.12    1.11    1.61    1.13    0.24    0.92
  0.20    0.87    0.40    0.43    0.00    0.50
  0.00    1.00    0.00    0.00    0.00    1.00
  6.58    4.10   11.17    6.31   10.37  688.02
 10.29    4.23    3.48    2.12   24.45   10.79
  5.00    2.00    1.00    3.00   14.00    4.00
  2.06    2.12    3.48    0.71    1.75    2.70
  0.00    1.45    0.19    0.09    0.00    0.00
  0.00    0.00    0.00    0.00    1.00    0.00
  8.08    6.44    5.89    3.13   10.15   47.39
  2.89    4.55    2.78    1.20    3.01    3.24
  2.00    3.00    3.00    1.00    2.00    3.00
  1.45    1.52    0.93    1.20    1.51    1.08
  0.00    0.00    0.00    1.90    1.00    0.50
  1.00    0.00    0.00    0.00    0.00    1.00
  6.75    6.75    6.07   16.68    7.68    0.00
          4.00    3.00   24.45   23.00
  6.00    2.00   12.92   52.00    3.00    0.00    1.00
  8.06    1.64    0.57    1.70    2.90    2.24    2.17    1.31
2.00
  3.00    1.00    1.00    1.00    1.00    2.00    1.00    2.00
1.00
  2.69    1.64    0.57    1.70    2.90    1.12    2.17    0.66
2.00
  0.50    0.00    0.63    0.90    3.83    0.36    5.41    2.67
0.23
  1.00    0.00    0.00    0.00    0.00    0.00    0.00    1.00
0.00
  6.84    6.20    8.60   22.53   15.18   11.28   15.48   53.48
35.28
 32.70   15.95   48.54   10.75   15.30    7.87    0.93    0.00
0.00
  3.00    1.00    8.00    1.00    9.00    2.00    2.00    0.00
0.00
 10.90   15.95    6.07   10.75    1.70    3.94    0.47    0.00
0.00
 13.95    0.46    0.00    0.00    1.30   31.83    6.11    0.00
0.00
  0.00    0.00    0.00    0.00    1.00    0.00    0.00    0.00
0.00
 12.94    9.51   18.18   17.52   38.63   13.59  610.00    0.00
0.00
                                  3.00    4.00   48.54   12.00
 15.95   48.54   10.75   15.30    7.87    0.93
  1.00    8.00    1.00    9.00    2.00    2.00
 15.95    6.07   10.75    1.70    3.94    0.47
  0.46    0.00    0.00    1.30   31.83    6.11
  0.00    0.00    0.00    1.00    0.00    0.00
```

```
  9.51   18.18   17.52   38.63   13.59  610.00
  2.74    5.25    5.91   21.61    6.48   10.41
  2.00    3.00    4.00   10.00    2.00    3.00
  1.37    1.75    1.48    2.16    3.24    3.47
  0.93    0.47    0.00    0.44    0.50    1.17
  0.00    1.00    0.00    1.00    0.00    0.00
  9.68    3.83   10.25    6.33    7.01    7.77
  2.71   11.60   12.41    5.77    8.98   11.53
  1.00    2.00    4.00    4.00    5.00    5.00
  2.71    5.80    3.10    1.44    1.80    2.31
  0.00    2.43    1.23    0.00    0.00    0.80
  0.00    0.00    1.00    1.00    1.00    1.00
 11.10   10.30    6.38    6.20   14.92    0.00
          4.00    4.00   21.61   22.00
  6.00    3.00   12.92   52.00    4.00    1.00    1.00
  9.64   18.15    6.44   11.71   23.22    6.64    2.92   20.52
14.41
  3.00    2.00    2.00    1.00    3.00    2.00    3.00    8.00
3.00
  3.21    9.08    3.22   11.71    7.74    3.32    0.97    2.57
4.80
  0.00    0.44    0.63    0.60    3.60    2.73    7.70    0.40
0.00
  0.00    0.00    0.00    0.00    0.00    0.00    1.00    2.00
0.00
 15.95   19.01   11.02   19.49   13.72   15.17    7.92    5.44
6.52
  8.30    6.24    2.57   23.33    3.83    5.96    0.60    5.84
0.44
  1.00    1.00    1.00   10.00    2.00    4.00    1.00    3.00
1.00
  8.30    6.24    2.57    2.33    1.92    1.49    0.60    1.95
0.44
  0.24    0.00    0.00    5.57    0.00    0.30    1.71    0.20
3.96
  0.00    0.00    0.00    1.00    0.00    1.00    0.00    0.00
0.00
  9.95    7.17   18.42    6.84    9.24    8.97   16.45   12.64
691.36
                                  4.00    4.00   23.22    5.00
 23.33    3.83    5.96    0.60    5.84    0.44
 10.00    2.00    4.00    1.00    3.00    1.00
  2.33    1.92    1.49    0.60    1.95    0.44
  5.57    0.00    0.30    1.71    0.20    3.96
  1.00    0.00    1.00    0.00    0.00    0.00
  6.84    9.24    8.97   16.45   12.64  691.36
  3.20    2.31    1.56    2.49    0.60    2.10
  1.00    2.00    1.00    2.00    1.00    1.00
  3.20    1.16    1.56    1.25    0.60    2.10
  0.94    0.83    1.11    4.97    1.58    0.00
  0.00    1.00    0.00    1.00    0.00    0.00
 21.25    9.22   12.88    6.49    9.10   18.35
  5.38    1.87    2.20    7.33    0.78    5.75
```

```
  2.00    2.00    1.00    4.00    2.00    4.00
  2.69    0.94    2.20    1.83    0.39    1.44
  1.23    0.30    1.07    0.30   30.26    0.16
  0.00    0.00    0.00    2.00    1.00    1.00
 12.41    8.51   15.62   34.37   13.19    0.00
          4.00    4.00    7.33   28.00
  6.00    4.00   12.92   52.00    1.00    1.00    1.00
  1.64   10.54    1.44    0.64    9.72    4.37    1.27    1.73
1.33
  2.00    2.00    1.00    1.00    2.00    2.00    2.00    1.00
2.00
  0.82    5.27    1.44    0.64    4.86    2.19    0.64    1.73
0.67
  0.00    0.67    9.88    0.70    0.00    0.00    1.11    2.08
1.46
  1.00    0.00    0.00    0.00    0.00    0.00    1.00    0.00
1.00
  7.41   21.85    7.60    9.67   17.55   32.77   10.81   15.58
13.61
  1.50    1.20    3.12    1.71    2.33    1.90    1.03    1.23
1.63
  2.00    1.00    2.00    2.00    4.00    2.00    1.00    1.00
1.00
  0.75    1.20    1.56    0.86    0.58    0.95    1.03    1.23
1.63
  2.50    0.47    1.57    0.00    0.43    0.36    2.64    0.37
4.14
  1.00    0.00    0.00    0.00    2.00    1.00    0.00    0.00
0.00
 21.42   22.83   20.39    8.37   18.71    8.61   32.50   10.22
672.96
                                 4.00    4.00   10.54    2.00
  1.71    2.33    1.90    1.03    1.23    1.63
  2.00    4.00    2.00    1.00    1.00    1.00
  0.86    0.58    0.95    1.03    1.23    1.63
  0.00    0.43    0.36    2.64    0.37    4.14
  0.00    2.00    1.00    0.00    0.00    0.00
  8.37   18.71    8.61   32.50   10.22  672.96
  6.04    2.28   26.14    6.50    1.47   12.70
  5.00    1.00    7.00    5.00    1.00    2.00
  1.21    2.28    3.73    1.30    1.47    6.35
  0.00    0.37    0.47    0.57    0.00    0.00
  1.00    0.00    1.00    1.00    0.00    0.00
  5.80    6.60    6.16   37.43   44.88   15.13
  3.50    0.49    0.84   24.29   19.88   11.14
  1.00    1.00    1.00    4.00   11.00    3.00
  3.50    0.49    0.84    6.07    1.81    3.71
  0.00    0.84    0.00    0.00    0.00    5.76
  0.00    0.00    0.00    0.00    0.00    1.00
  8.01    7.05    5.80    8.42   14.17    0.00
          4.00    4.00   26.14   21.00
```

```
  7.00    1.00    9.92   46.00    3.00    1.00    1.00    2.00
3.00
  5.54    3.46   11.46    4.15    1.80    1.93    4.06    1.35
1.39
  3.00    2.00    3.00    3.00    2.00    2.00    2.00    1.00
2.00
  1.85    1.73    3.82    1.38    0.90    0.97    2.03    1.35
0.70
  0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00
  0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00
  9.84   10.94   19.84    8.99    7.98    8.60   11.81    8.46
6.35
  1.78    2.70    2.39    0.82    1.10    9.37   11.40    1.76
2.51
  2.00    1.00    2.00    1.00    1.00    2.00    5.00    2.00
2.00
  0.89    2.70    1.20    0.82    1.10    4.69    2.28    0.88
1.26
  0.00    0.00    0.00    0.00    1.20    0.00    0.00    0.00
0.24
  0.00    0.00    0.00    0.00    0.00    0.00    1.00    0.00
0.00
  9.01    9.51    9.88    8.92    7.81    7.94   10.81   11.68
586.36
                                    4.00    4.00   11.46    3.00
  0.82    1.10    9.37   11.40    1.76    2.51
  1.00    1.00    2.00    5.00    2.00    2.00
  0.82    1.10    4.69    2.28    0.88    1.26
  0.00    1.20    0.00    0.00    0.00    0.24
  0.00    0.00    0.00    1.00    0.00    0.00
  8.92    7.81    7.94   10.81   11.68  586.36
  1.40    1.25    1.10    1.21    2.35    3.40
  1.00    1.00    1.00    1.00    4.00    1.00
  1.40    1.25    1.10    1.21    0.59    3.40
  0.00    0.00    0.41    0.00    0.00    0.00
  0.00    0.00    0.00    0.00    1.00    0.00
 10.51    9.90   11.24   10.77    8.67    9.72
  2.49    3.23    1.50    1.33    2.84    2.48
  2.00    2.00    2.00    1.00    1.00    1.00
  1.25    1.62    0.75    1.33    2.84    2.48
  0.00    0.00    0.00    0.00    6.40    0.00
  0.00    1.00    0.00    0.00    0.00    0.00
  7.28   12.55   10.02   23.15    9.15    0.00
          4.00    4.00    3.40   24.00
  7.00    2.00    9.92   46.00    4.00    0.00    1.00
  2.26    0.97    2.25    1.24    1.07    2.12    2.22    0.80
2.64
  3.00    1.00    2.00    1.00    2.00    1.00    3.00    1.00
3.00
```

```
  0.75    0.97    1.13    1.24    0.54    2.12    0.74    0.80
0.88
  0.00    0.00    0.00    0.14    0.00    0.00    0.00    0.00
0.33
  0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
1.00
  8.25    7.57   10.25    6.90    8.32   11.59    9.14   10.67
8.01
  1.13    1.08    3.72    2.97    2.01    0.91    1.64    0.00
0.00
  2.00    2.00    3.00    3.00    2.00    1.00    1.00    0.00
0.00
  0.57    0.54    1.24    0.99    1.01    0.91    1.64    0.00
0.00
  0.00    1.28    0.00    0.00    0.00    0.00    0.00    0.00
0.00
  0.00    0.00    0.00    1.00    0.00    0.00    0.00    0.00
0.00
 10.89    7.32    9.24    8.24   10.57    8.74  638.24    0.00
0.00
                                 4.00    4.00    3.72    0.00
  1.08    3.72    2.97    2.01    0.91    1.64
  2.00    3.00    3.00    2.00    1.00    1.00
  0.54    1.24    0.99    1.01    0.91    1.64
  1.28    0.00    0.00    0.00    0.00    0.00
  0.00    0.00    1.00    0.00    0.00    0.00
  7.32    9.24    8.24   10.57    8.74  638.24
  2.12    1.40    1.93    1.74    1.20    0.89
  2.00    2.00    2.00    1.00    1.00    1.00
  1.06    0.70    0.97    1.74    1.20    0.89
  0.00    0.00    0.00    1.71    0.00    0.30
  0.00    0.00    1.00    0.00    0.00    0.00
  7.98    8.35    9.88    9.80    8.75   10.21
  1.15    2.19    0.70    1.11    0.88    2.43
  1.00    2.00    1.00    1.00    2.00    2.00
  1.15    1.10    0.70    1.11    0.44    1.22
  0.00    0.00    0.00    0.00    0.00    0.00
  0.00    0.00    0.00    0.00    0.00    1.00
  9.84   13.02    9.14    6.73    6.01    0.00
          4.00    4.00    2.43   30.00
  7.00    3.00    9.92   46.00    1.00    0.00    1.00
  3.04    1.51    1.06    1.04    1.33    1.84    0.63    1.37
1.48
  2.00    1.00    2.00    3.00    2.00    3.00    1.00    2.00
1.00
  1.52    1.51    0.53    0.35    0.67    0.61    0.63    0.69
1.48
  0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.24
0.00
  0.00    0.00    0.00    1.00    1.00    0.00    0.00    0.00
0.00
```

```
  9.54    7.03    9.58    7.30    6.41    7.78    7.11    9.28
8.20
  1.43    1.43    0.60    1.13    0.74    0.70    1.60    0.00
0.00
  1.00    3.00    1.00    1.00    1.00    2.00    3.00    0.00
0.00
  1.43    0.48    0.60    1.13    0.74    0.35    0.53    0.00
0.00
  0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00
  0.00    0.00    0.00    0.00    0.00    0.00    1.00    0.00
0.00
  7.54    6.76    7.60    9.78    7.80    8.57  604.52    0.00
0.00
                                  3.00    4.00    3.04    1.00
  1.43    0.60    1.13    0.74    0.70    1.60
  3.00    1.00    1.00    1.00    2.00    3.00
  0.48    0.60    1.13    0.74    0.35    0.53
  0.00    0.00    0.00    0.00    0.00    0.00
  0.00    0.00    0.00    0.00    0.00    1.00
  6.76    7.60    9.78    7.80    8.57  604.52
  1.07    0.43    2.40    2.11    1.28    9.66
  1.00    1.00    1.00    1.00    3.00    3.00
  1.07    0.43    2.40    2.11    0.43    3.22
  0.00    0.00    1.70    0.00    0.00    0.00
  0.00    0.00    0.00    0.00    0.00    0.00
  8.31   12.05   10.14   14.44    6.63    9.90
  4.49    2.74    1.10    1.04    5.15    4.54
  3.00    2.00    1.00    3.00    2.00    1.00
  1.50    1.37    1.10    0.35    2.58    4.54
  0.23    0.00    0.00    0.00    3.23    0.00
  1.00    0.00    0.00    1.00    0.00    0.00
  4.30    7.94    9.10   13.88   22.21    0.00
          4.00    4.00    9.66   24.00
  7.00    4.00    9.92   46.00    2.00    1.00    1.00
  3.15    1.70    6.39    1.76    3.56    0.87    0.51    2.39
3.73
  2.00    1.00    2.00    2.00    3.00    2.00    1.00    3.00
4.00
  1.58    1.70    3.20    0.88    1.19    0.44    0.51    0.80
0.93
  0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.46
0.00
  0.00    0.00    0.00    0.00    1.00    0.00    0.00    0.00
1.00
  8.14    8.67    7.64    9.16    9.01    8.54    9.06    9.60
8.15
  3.45    4.47    1.76    1.21    1.90    3.20    0.37    2.54
4.23
  2.00    2.00    3.00    2.00    1.00    2.00    1.00    2.00
2.00
```

```
  1.73    2.24    0.59    0.61    1.90    1.60    0.37    1.27
2.12
  0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.27
0.00
  0.00    0.00    0.00    0.00    0.00    0.00    0.00    1.00
0.00
 12.01   10.85    9.95    7.98    8.07    6.54   11.65    8.25
740.46
                                 4.00    4.00    6.39    3.00
  1.21    1.90    3.20    0.37    2.54    4.23
  2.00    1.00    2.00    1.00    2.00    2.00
  0.61    1.90    1.60    0.37    1.27    2.12
  0.00    0.00    0.00    0.00    0.27    0.00
  0.00    0.00    0.00    0.00    1.00    0.00
  7.98    8.07    6.54   11.65    8.25  740.46
  5.68    4.27    1.61    1.76    2.38    2.39
  5.00    1.00    2.00    1.00    1.00    2.00
  1.14    4.27    0.81    1.76    2.38    1.20
  0.00    0.00    0.33    0.00    0.00    0.00
  0.00    0.00    0.00    0.00    0.00    0.00
  7.67   12.85    9.21   11.46   11.97   10.00
  5.89    1.08    3.64    6.39    1.33    1.81
  1.00    3.00    1.00    3.00    1.00    1.00
  5.89    0.36    3.64    2.13    1.33    1.81
  0.00    2.26    0.16    0.00    0.00    0.00
  0.00    0.00    0.00    0.00    0.00    0.00
 12.69   10.98    7.37    6.84    9.41    0.00
         4.00    4.00    6.39   28.00
  8.00    1.00   13.42   28.00    4.00    1.00    2.00    2.00
4.00
  3.26    1.07    2.87    2.30    0.63    0.13    1.60    2.00
0.54
  1.00    1.00    1.00    1.00    2.00    1.00    1.00    1.00
1.00
  3.26    1.07    2.87    2.30    0.32    0.13    1.60    2.00
0.54
  1.14    1.66    1.28   10.19   23.23    0.10    1.13    9.95
1.53
  0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00
 21.86   22.36   22.69   39.64   25.26   17.65   37.27   24.26
13.64
  0.61    1.14    1.80    1.34    2.30    4.31    0.47    0.44
0.50
  1.00    1.00    1.00    1.00    2.00    2.00    1.00    1.00
1.00
  0.61    1.14    1.80    1.34    1.15    2.16    0.47    0.44
0.50
  1.50    1.33    0.38    0.64    1.23   20.91    0.70    1.96
0.34
  0.00    0.00    0.00    0.00    1.00    0.00    0.00    0.00
0.00
```

```
 18.31   13.48   14.61   11.04   27.79    8.01    9.07    7.64
658.77
                                 3.00    3.00    3.26    1.00
  1.34    2.30    4.31    0.47    0.44    0.50
  1.00    2.00    2.00    1.00    1.00    1.00
  1.34    1.15    2.16    0.47    0.44    0.50
  0.64    1.23   20.91    0.70    1.96    0.34
  0.00    1.00    0.00    0.00    0.00    0.00
 11.04   27.79    8.01    9.07    7.64  658.77
  1.60    0.82    2.03    1.70    0.74    0.00
  1.00    1.00    1.00    1.00    1.00    0.00
  1.60    0.82    2.03    1.70    0.74    0.00
 17.41   15.95    0.43    1.20    0.33    0.00
  0.00    0.00    0.00    0.00    0.00    0.00
 26.53   37.92    8.91   21.99  109.54    0.00
  0.76    1.30    0.53    0.40    0.47    1.70
  1.00    1.00    1.00    1.00    1.00    1.00
  0.76    1.30    0.53    0.40    0.47    1.70
 32.97    0.47    1.67    0.00   30.16    0.00
  0.00    0.00    0.00    0.00    0.00    0.00
 13.89    9.61    7.91   40.84   14.51    0.00
          3.00    3.00    2.03   21.00
  8.00    2.00   13.42   28.00    1.00    1.00    2.00
  4.16    1.20    0.56    2.53    1.63    1.40    0.75    5.44
1.96
  2.00    1.00    1.00    2.00    2.00    1.00    2.00    1.00
1.00
  2.08    1.20    0.56    1.27    0.82    1.40    0.38    5.44
1.96
 11.22    0.27    1.34    0.60    0.87    0.00    0.00    0.57
0.77
  0.00    0.00    0.00    1.00    1.00    0.00    0.00    0.00
0.00
 18.69   12.69   21.69   17.12    9.44    8.18   10.35   15.15
41.38
  1.20    2.40    1.90    4.98    3.74    0.81    2.99    1.90
8.31
  1.00    2.00    1.00    3.00    3.00    1.00    2.00    1.00
3.00
  1.20    1.20    1.90    1.66    1.25    0.81    1.50    1.90
2.77
  6.64    0.00    0.57    1.03    0.35    0.00    0.42    8.48
1.76
  0.00    0.00    0.00    2.00    2.00    0.00    0.00    0.00
1.00
 19.82   14.05   10.01    8.36   25.11   19.43   27.67   17.01
651.67
                                 4.00    4.00    5.44    8.00
  4.98    3.74    0.81    2.99    1.90    8.31
  3.00    3.00    1.00    2.00    1.00    3.00
  1.66    1.25    0.81    1.50    1.90    2.77
  1.03    0.35    0.00    0.42    8.48    1.76
  2.00    2.00    0.00    0.00    0.00    1.00
```

```
  8.36  25.11  19.43  27.67  17.01 651.67
  6.87   0.81   0.83   0.28   2.37   2.67
  3.00   1.00   2.00   1.00   2.00   2.00
  2.29   0.81   0.42   0.28   1.19   1.34
  0.88   0.00   0.03   0.76   8.44   1.00
  0.00   0.00   0.00   0.00   0.00   0.00
 22.41  20.15   8.84  30.82  10.85   8.84
  1.43   4.87   9.22   3.10   1.20   1.96
  2.00   3.00   6.00   2.00   1.00   3.00
  0.72   1.62   1.54   1.55   1.20   0.65
  0.86   0.00   0.37   0.00   9.69   0.37
  0.00   0.00   2.00   1.00   0.00   2.00
 30.64   7.68   9.44  17.09  40.14   0.00
         4.00   4.00   9.22  27.00
  8.00   3.00  13.42  28.00   2.00   0.00   2.00
  2.84   1.24   5.84   1.34   3.46   0.53   1.07   2.00
0.73
  3.00   1.00   4.00   1.00   2.00   2.00   1.00   1.00
1.00
  0.95   1.24   1.46   1.34   1.73   0.27   1.07   2.00
0.73
  1.16   0.00   0.38   0.00   0.87   1.80   0.00   0.14
0.34
  0.00   0.00   0.00   0.00   0.00   1.00   0.00   0.00
0.00
  9.08   8.38   7.27  68.51   8.71   6.68   8.21   9.85
14.68
  1.14   4.21   3.26   6.37   3.48   1.30   1.20   0.00
0.00
  2.00   5.00   2.00   6.00   4.00   1.00   2.00   0.00
0.00
  0.57   0.84   1.63   1.06   0.87   1.30   0.60   0.00
0.00
  0.44   0.83   2.73   1.10   0.36   0.93   0.53   0.00
0.00
  0.00   2.00   0.00   1.00   1.00   0.00   1.00   0.00
0.00
  9.54  11.29   8.51   9.67  13.70  12.48 666.74   0.00
0.00
                                   4.00   4.00   5.84   3.00
  4.21   3.26   6.37   3.48   1.30   1.20
  5.00   2.00   6.00   4.00   1.00   2.00
  0.84   1.63   1.06   0.87   1.30   0.60
  0.83   2.73   1.10   0.36   0.93   0.53
  2.00   0.00   1.00   1.00   0.00   1.00
 11.29   8.51   9.67  13.70  12.48 666.74
  0.99   2.17   1.33   3.75   0.97   1.01
  2.00   1.00   1.00   2.00   1.00   2.00
  0.50   2.17   1.33   1.88   0.97   0.51
  1.24   0.00   0.10   0.29   0.90   1.13
  1.00   0.00   0.00   0.00   0.00   0.00
  8.31   8.54  15.08  13.71  14.71  21.50
  1.36   1.44   0.69   2.25   2.32   2.14
```

```
  2.00    3.00    1.00    3.00    3.00    2.00
  0.68    0.48    0.69    0.75    0.77    1.07
  8.41    0.50    0.94    0.86    0.00    1.24
  0.00    1.00    0.00    2.00    2.00    0.00
 15.72   16.71   11.81   17.75   65.17    0.00
         4.00    2.00    3.75   22.00
  8.00    4.00   13.42   28.00    3.00    0.00    2.00
  6.21    2.93    8.56    7.62    1.43    0.84    1.80    0.53
4.29
  3.00    1.00    6.00    6.00    1.00    2.00    2.00    1.00
2.00
  2.07    2.93    1.43    1.27    1.43    0.42    0.90    0.53
2.15
  1.10    1.00    1.30    1.33    0.30    0.70    0.86    3.91
0.00
  1.00    0.00    1.00    1.00    0.00    1.00    1.00    0.00
0.00
  9.87   24.43   16.68    8.40    7.05    7.80   17.79    8.37
16.35
  3.76    0.13    0.73    1.81    1.33    1.48    0.23    0.00
0.00
  6.00    1.00    1.00    1.00    2.00    1.00    1.00    0.00
0.00
  0.63    0.13    0.73    1.81    0.67    1.48    0.23    0.00
0.00
  1.61    0.97    0.44    0.90    9.68   12.50    3.17    0.00
0.00
  1.00    0.00    0.00    0.00    1.00    0.00    0.00    0.00
0.00
  9.84   11.18   11.48   27.32   37.80   14.54  711.64    0.00
0.00
                                 4.00    4.00    8.56    3.00
  0.13    0.73    1.81    1.33    1.48    0.23
  1.00    1.00    1.00    2.00    1.00    1.00
  0.13    0.73    1.81    0.67    1.48    0.23
  0.97    0.44    0.90    9.68   12.50    3.17
  0.00    0.00    0.00    1.00    0.00    0.00
 11.18   11.48   27.32   37.80   14.54  711.64
  4.68    4.15    1.94    1.03    3.35    0.97
  5.00    4.00    1.00    2.00    4.00    1.00
  0.94    1.04    1.94    0.52    0.84    0.97
  0.54    0.60    7.07   12.61    3.18    0.36
  0.00    0.00    0.00    0.00    3.00    0.00
 11.83   13.61   20.08   11.42    3.83   19.85
  4.76    4.40   11.50    3.74    4.97    1.30
  4.00    3.00    4.00    5.00    2.00    1.00
  1.19    1.47    2.88    0.75    2.49    1.30
  0.43    0.46    0.51    0.40    0.70    5.30
  1.00    0.00    2.00    0.00    0.00    0.00
  6.31    5.47   16.39    7.17   14.81    0.00
          4.00    3.00   11.50   27.00
```

```
  9.00    1.00    8.67   48.00    1.00    0.00    2.00    3.00
1.00
  3.10    1.68    7.49    1.11    0.72    1.02    0.47    1.73
0.80
  3.00    1.00    7.00    1.00    2.00    2.00    1.00    2.00
2.00
  1.03    1.68    1.07    1.11    0.36    0.51    0.47    0.87
0.40
  0.00    0.00    0.00    0.00    0.00    0.00    0.13    0.00
0.27
  1.00    0.00    1.00    0.00    0.00    0.00    0.00    1.00
1.00
  5.63    5.87    3.75    7.43    6.20    6.64   12.25    6.65
8.07
  1.13    0.84    1.36    1.01    0.80    3.84    3.20    0.00
0.00
  1.00    1.00    2.00    1.00    1.00    3.00    3.00    0.00
0.00
  1.13    0.84    0.68    1.01    0.80    1.28    1.07    0.00
0.00
  0.00    0.00    0.00    0.33    0.00    3.27    0.23    0.00
0.00
  0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00
  6.08    5.84    6.21    7.60   11.41    6.75  557.02    0.00
0.00
                                    3.00    3.00    7.49    3.00
  0.84    1.36    1.01    0.80    3.84    3.20
  1.00    2.00    1.00    1.00    3.00    3.00
  0.84    0.68    1.01    0.80    1.28    1.07
  0.00    0.00    0.33    0.00    3.27    0.23
  0.00    0.00    0.00    0.00    0.00    0.00
  5.84    6.21    7.60   11.41    6.75  557.02
  0.77    3.76    1.00    1.54    1.24    2.83
  1.00    5.00    2.00    1.00    1.00    3.00
  0.77    0.75    0.50    1.54    1.24    0.94
  0.00    0.00    0.00    1.39    0.00    0.00
  0.00    3.00    1.00    0.00    0.00    0.00
  6.07    6.47   10.24    6.56    6.55    6.14
  0.93    1.17    0.57    0.87    4.24    1.21
  1.00    1.00    1.00    2.00    3.00    2.00
  0.93    1.17    0.57    0.44    1.41    0.61
  0.00    0.00    0.40    0.20    0.00    0.00
  0.00    0.00    0.00    1.00    0.00    0.00
  7.54    6.64    6.21    3.94    3.27    0.00
          3.00    3.00    4.24   29.00
  9.00    2.00    8.67   48.00    2.00    1.00    2.00
  4.44    1.33    1.34    1.47    0.44    0.90    1.17    5.77
1.21
  5.00    1.00    2.00    2.00    1.00    2.00    1.00    4.00
2.00
```

```
  0.89    1.33    0.67    0.74    0.44    0.45    1.17    1.44
0.61
  0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00
  0.00    0.00    0.00    0.00    0.00    1.00    0.00    0.00
0.00
  4.50    6.11    6.41    7.24    6.67    4.31    6.51    6.27
6.07
  1.67    1.60    2.70    0.74    1.62    1.97    0.37    0.57
1.06
  2.00    2.00    1.00    1.00    2.00    2.00    1.00    2.00
1.00
  0.84    0.80    2.70    0.74    0.81    0.99    0.37    0.29
1.06
  0.00    0.33    0.00    0.00    3.60    0.00    0.00    0.00
0.00
  0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00
  6.81    6.24    6.71   11.20    8.17    5.94    7.24    6.24
782.65
                                   3.00    3.00    5.77    8.00
  0.74    1.62    1.97    0.37    0.57    1.06
  1.00    2.00    2.00    1.00    2.00    1.00
  0.74    0.81    0.99    0.37    0.29    1.06
  0.00    3.60    0.00    0.00    0.00    0.00
  0.00    0.00    0.00    0.00    0.00    0.00
 11.20    8.17    5.94    7.24    6.24  782.65
 17.15    5.87    2.43    2.96    0.77    0.50
  9.00    2.00    3.00    2.00    1.00    1.00
  1.91    2.94    0.81    1.48    0.77    0.50
  0.00    0.00    0.00    0.00    0.00    0.00
  0.00    0.00    0.00    0.00    0.00    0.00
  7.38    5.95    5.94    6.57    7.14    6.74
  3.94    0.47    2.66    1.43    2.00    0.45
  4.00    1.00    2.00    3.00    2.00    1.00
  0.99    0.47    1.33    0.48    1.00    0.45
  0.03    0.00    0.03    0.00    0.20    0.00
  0.00    0.00    0.00    1.00    1.00    0.00
  6.24    6.64    6.12    4.90    7.35    0.00
          3.00    3.00   17.15   19.00
  9.00    3.00    8.67   48.00    3.00    1.00    2.00
  1.33    1.04    0.46    1.40    8.62    2.74    1.47    1.18
1.53
  1.00    2.00    1.00    1.00    4.00    2.00    1.00    2.00
2.00
  1.33    0.52    0.46    1.40    2.16    1.37    1.47    0.59
0.77
  0.00    0.00    0.00    0.00    0.26    0.00    0.00    0.40
0.00
  0.00    1.00    0.00    0.00    0.00    0.00    0.00    0.00
1.00
```

```
  6.14    4.48    9.98    6.17    6.54    6.07    8.67    9.74
13.21
  0.70    1.91    0.73    0.86    1.10    8.37    5.33    1.78
2.68
  3.00    2.00    1.00    2.00    1.00    1.00    1.00    1.00
1.00
  0.23    0.96    0.73    0.43    1.10    8.37    5.33    1.78
2.68
  0.00    0.20    0.00    4.30    0.00    0.17    0.00    0.00
0.16
  1.00    1.00    0.00    1.00    0.00    0.00    0.00    0.00
0.00
  7.21    5.84   10.18    6.10    6.52    5.61    7.94    6.06
529.62
                                   4.00    3.00    8.62    5.00
  0.86    1.10    8.37    5.33    1.78    2.68
  2.00    1.00    1.00    1.00    1.00    1.00
  0.43    1.10    8.37    5.33    1.78    2.68
  4.30    0.00    0.17    0.00    0.00    0.16
  1.00    0.00    0.00    0.00    0.00    0.00
  6.10    6.52    5.61    7.94    6.06  529.62
  1.07    0.80    2.06    1.57    2.74    0.45
  1.00    1.00    3.00    1.00    2.00    1.00
  1.07    0.80    0.69    1.57    1.37    0.45
  0.00    0.58    0.00    0.30    0.00    0.00
  0.00    0.00    1.00    0.00    0.00    0.00
 10.55    8.81    9.14    9.84    7.92    6.55
  0.47    5.82    0.53    0.43    1.47    2.26
  1.00    6.00    1.00    2.00    2.00    1.00
  0.47    0.97    0.53    0.22    0.74    2.26
  0.00    0.20    0.00    0.00    0.23    0.00
  0.00    0.00    0.00    0.00    0.00    0.00
  9.95    6.17    6.31    6.71    5.05    0.00
          3.00    3.00    5.82   26.00
  9.00    4.00    8.67   48.00    4.00    0.00    2.00
  1.72    0.60    1.13    0.73    0.48    3.22    0.50    0.90
1.43
  2.00    1.00    2.00    1.00    1.00    3.00    1.00    1.00
1.00
  0.86    0.60    0.57    0.73    0.48    1.07    0.50    0.90
1.43
  0.00    0.00    0.00    0.00    0.32    0.00    0.00    4.21
0.00
  0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00
  5.74    7.94    6.14   12.64    8.01    4.00    9.85    7.57
6.61
  5.34    1.50    1.87    5.31    6.44    0.53    1.56    0.00
0.00
  2.00    2.00    1.00    2.00    1.00    1.00    2.00    0.00
0.00
```

```
  2.67    0.75    1.87    2.66    6.44    0.53    0.78    0.00
0.00
  0.26    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00
  0.00    0.00    0.00    0.00    0.00    0.00    1.00    0.00
0.00
  4.07   12.25    5.94    6.07    5.58    6.00  652.88    0.00
0.00
                                 3.00    3.00    5.34   10.00
  1.50    1.87    5.31    6.44    0.53    1.56
  2.00    1.00    2.00    1.00    1.00    2.00
  0.75    1.87    2.66    6.44    0.53    0.78
  0.00    0.00    0.00    0.00    0.00    0.00
  0.00    0.00    0.00    0.00    0.00    1.00
 12.25    5.94    6.07    5.58    6.00  652.88
  3.81    1.42    1.07    1.91    1.64    0.63
  3.00    1.00    1.00    2.00    3.00    1.00
  1.27    1.42    1.07    0.96    0.55    0.63
  0.00    0.00    0.00    0.00    0.00    0.00
  0.00    0.00    0.00    1.00    0.00    0.00
  6.00    6.09    7.07    3.96    5.97    6.58
  2.08    0.77    1.81    1.32    2.44    1.34
  4.00    1.00    2.00    3.00    2.00    2.00
  0.52    0.77    0.91    0.44    1.22    0.67
  0.00    0.00    0.16    0.00    0.00    0.00
  1.00    0.00    1.00    2.00    0.00    0.00
  5.09    6.04    3.53    7.17    6.71    0.00
          3.00    3.00    3.81   19.00
 10.00    1.00   13.92   43.00    2.00    1.00    1.00    1.00
2.00
  3.21    0.20    1.27    0.23    4.95    0.27    0.64    0.87
1.42
  4.00    1.00    2.00    2.00    3.00    1.00    2.00    3.00
3.00
  0.80    0.20    0.64    0.12    1.65    0.27    0.32    0.29
0.47
  0.00    1.03    0.00    0.00    0.00    0.00    0.00    0.00
0.00
  0.00    0.00    0.00    0.00    1.00    0.00    0.00    1.00
0.00
  8.34    6.51    7.05    7.57    8.74   11.47   17.48   10.44
36.17
  0.47    0.58    0.10    0.63    0.17    6.86    0.57    0.57
0.65
  2.00    1.00    1.00    1.00    1.00    6.00    2.00    2.00
3.00
  0.24    0.58    0.10    0.63    0.17    1.14    0.29    0.29
0.22
 24.96    0.20   42.54    0.00    0.13    4.61    0.00   17.01
0.80
  0.00    0.00    0.00    0.00    0.00    2.00    1.00    0.00
1.00
```

```
  9.30   49.47    6.88   15.98   28.40    8.24   49.48   10.71
683.70
                                 4.00    3.00    4.95    5.00
  0.63    0.17    6.86    0.57    0.57    0.65
  1.00    1.00    6.00    2.00    2.00    3.00
  0.63    0.17    1.14    0.29    0.29    0.22
  0.00    0.13    4.61    0.00   17.01    0.80
  0.00    0.00    2.00    1.00    0.00    1.00
 15.98   28.40    8.24   49.48   10.71  683.70
  0.60    2.10    2.61    0.44    0.90    0.73
  1.00    2.00    4.00    1.00    3.00    2.00
  0.60    1.05    0.65    0.44    0.30    0.37
 21.70    0.00    0.00    0.00    1.28   19.32
  0.00    1.00    1.00    0.00    2.00    1.00
 53.18   19.28   10.57    8.81   32.77   36.51
  0.27    0.27    2.67    0.57    0.24    0.26
  1.00    1.00    2.00    2.00    1.00    1.00
  0.27    0.27    1.34    0.29    0.24    0.26
 25.76    0.00    0.00    0.00    0.00    9.11
  0.00    0.00    0.00    0.00    0.00    0.00
  9.54   10.44    8.04   55.66   18.18    0.00
         4.00    4.00    2.67   27.00
 10.00    2.00   13.92   43.00    3.00    0.00    1.00
  0.97    0.67    0.37    0.10    0.44    1.27    2.74    0.96
0.24
  1.00    1.00    1.00    1.00    1.00    2.00    1.00    1.00
1.00
  0.97    0.67    0.37    0.10    0.44    0.64    2.74    0.96
0.24
  0.16    0.08    0.00    0.24   35.00    0.00    0.80   52.05
0.00
  0.00    0.00    0.00    0.00    0.00    1.00    0.00    0.00
0.00
 16.88    8.44    9.22   54.68    7.70    9.31   60.90   24.39
8.27
  0.31    2.71    0.36    1.13    0.66    0.70    1.70    0.00
0.00
  2.00    2.00    1.00    1.00    2.00    2.00    2.00    0.00
0.00
  0.16    1.36    0.36    1.13    0.33    0.35    0.85    0.00
0.00
  0.20    0.56    0.00    0.00   26.43    0.00    0.00    0.00
0.00
  1.00    0.00    0.00    0.00    1.00    0.00    1.00    0.00
0.00
 32.69   28.45    6.52   33.67   10.58   17.58  653.26    0.00
0.00
                                 4.00    4.00    2.74    7.00
  2.71    0.36    1.13    0.66    0.70    1.70
  2.00    1.00    1.00    2.00    2.00    2.00
  1.36    0.36    1.13    0.33    0.35    0.85
  0.56    0.00    0.00   26.43    0.00    0.00
  0.00    0.00    0.00    1.00    0.00    1.00
```

```
 28.45    6.52   33.67   10.58   17.58  653.26
  0.77    0.37    0.17    1.77    1.59    1.40
  2.00    1.00    1.00    5.00    4.00    3.00
  0.39    0.37    0.17    0.35    0.41    0.47
  0.37   15.81    0.07    0.00    0.99    1.97
  0.00    0.00    0.00    3.00    2.00    1.00
 24.26    7.91   54.04    7.12    7.12    7.02
  0.46    0.70    0.30    0.74    4.03    0.60
  2.00    2.00    1.00    2.00    4.00    1.00
  0.23    0.35    0.30    0.37    1.01    0.60
  0.00    0.20    0.00  253.22    0.00    0.00
  0.00    0.00    0.00    0.00    3.00    0.00
 50.40   48.62  319.58   13.85   22.99    0.00
         4.00    4.00    4.03   29.00
 10.00    3.00   13.92   43.00    4.00    1.00    1.00
  1.10    6.79    2.25    0.17    0.83    0.33    0.30    4.29
0.27
  2.00    3.00    4.00    2.00    2.00    1.00    1.00    4.00
1.00
  0.55    2.26    0.56    0.09    0.42    0.33    0.30    1.07
0.27
  0.00   89.15    0.00    0.23    0.00    1.57    0.00    0.00
0.00
  1.00    1.00    1.00    1.00    1.00    0.00    0.00    1.00
0.00
 98.34    5.91    5.97   12.42    8.84    7.31    7.98   12.00
8.54
  0.43    0.84    1.00    3.03    0.65    1.90    1.72    1.11
0.41
  2.00    2.00    2.00    4.00    3.00    4.00    2.00    3.00
2.00
  0.22    0.42    0.50    0.76    0.22    0.48    0.86    0.37
0.21
  0.00    0.24    1.14    0.00    0.00    0.00    0.20    0.00
0.00
  1.00    0.00    1.00    2.00    2.00    1.00    0.00    0.00
0.00
 46.85    6.70   17.78   12.09  112.47  103.51   18.59   54.91
793.11
                                 4.00    4.00    6.79    2.00
  3.03    0.65    1.90    1.72    1.11    0.41
  4.00    3.00    4.00    2.00    3.00    2.00
  0.76    0.22    0.48    0.86    0.37    0.21
  0.00    0.00    0.00    0.20    0.00    0.00
  2.00    2.00    1.00    0.00    0.00    0.00
 12.09  112.47  103.51   18.59   54.91  793.11
  2.30    1.50    0.37    1.43    2.06    0.85
  5.00    2.00    1.00    4.00    5.00    3.00
  0.46    0.75    0.37    0.36    0.41    0.28
  0.00    0.00   45.55    0.00    2.37    0.00
  1.00    1.00    0.00    1.00    0.00    1.00
  7.28   55.69   10.87   10.05    5.45    7.22
  0.64    0.27    0.50    3.81    0.20    2.66
```

```
  2.00    1.00    2.00    1.00    1.00    1.00
  0.32    0.27    0.25    3.81    0.20    2.66
  0.00    0.00    0.00    0.67    0.47   24.43
  1.00    0.00    0.00    0.00    0.00    0.00
 21.72   27.42   15.22   42.51   56.19    0.00
         4.00    4.00    3.81   28.00
 10.00    4.00   13.92   43.00    1.00    0.00    1.00
  2.48    0.36    1.62    0.13    0.67    1.26    6.32    0.00
2.30
  2.00    2.00    3.00    1.00    2.00    3.00    4.00    0.00
4.00
  1.24    0.18    0.54    0.13    0.34    0.42    1.58    0.00
0.58
 40.51    0.20    0.00    1.87    0.00    0.00    0.00    0.00
0.00
  1.00    1.00    2.00    0.00    0.00    1.00    1.00    0.00
0.00
  6.14   13.24    8.61    7.11    9.20   10.70   15.04    0.00
8.37
  0.97    4.09    0.47    0.90    0.32    2.36    1.98    0.00
0.00
  1.00    5.00    1.00    1.00    1.00    2.00    2.00    0.00
0.00
  0.97    0.82    0.47    0.90    0.32    1.18    0.99    0.00
0.00
  0.00    0.20   23.02    0.40   33.10    0.00   92.86    0.00
0.00
  0.00    3.00    0.00    0.00    0.00    1.00    0.00    0.00
0.00
 44.81   41.17   31.86   39.51    7.64  124.09  670.76    0.00
0.00
                                 4.00    4.00    6.32    7.00
  4.09    0.47    0.90    0.32    2.36    1.98
  5.00    1.00    1.00    1.00    2.00    2.00
  0.82    0.47    0.90    0.32    1.18    0.99
  0.20   23.02    0.40   33.10    0.00   92.86
  3.00    0.00    0.00    0.00    1.00    0.00
 41.17   31.86   39.51    7.64  124.09  670.76
  0.80    0.93    2.84    1.54    0.20    0.98
  2.00    1.00    3.00    1.00    1.00    4.00
  0.40    0.93    0.95    1.54    0.20    0.25
  0.00   71.54    0.00    0.00   38.84    0.00
  1.00    0.00    1.00    0.00    0.00    2.00
 96.03   35.58   25.14   52.85   16.15    8.00
  0.73    1.28    2.93    2.23    4.75    2.08
  1.00    2.00    2.00    2.00    4.00    3.00
  0.73    0.64    1.47    1.12    1.19    0.69
  0.00    1.60  104.38    0.00    0.03    0.00
  0.00    0.00    1.00    0.00    0.00    0.00
  8.58  109.08    8.51    6.30    9.20    0.00
        4.00    4.00    4.75   29.00
```

```
 11.00    1.00   13.33   21.00    3.00    1.00    1.00    1.00
3.00
  6.40   10.33    2.86    2.66    2.54    1.55    1.84    6.27
2.90
  4.00    9.00    4.00    2.00    1.00    3.00    3.00    3.00
1.00
  1.60    1.15    0.72    1.33    2.54    0.52    0.61    2.09
2.90
  0.00    0.20    1.23    5.57   18.68    0.07    1.27    0.23
0.24
  0.00    1.00    0.00    0.00    0.00    2.00    1.00    0.00
0.00
 13.55   24.99   31.37   45.44   11.68    6.36   30.10   17.49
31.39
  1.95    4.21    2.23    0.94    3.44   15.89    4.86   17.03
11.85
  2.00    3.00    2.00    1.00    3.00   11.00    4.00    9.00
1.00
  0.98    1.40    1.12    0.94    1.15    1.44    1.22    1.89
11.85
 15.28    0.27    0.00    0.36    0.46    0.47    0.33    0.37
0.00
  0.00    1.00    0.00    0.00    1.00    0.00    0.00    0.00
0.00
 24.72   15.92   11.30   10.01   21.39    9.92   12.78   14.72
658.42
                                 4.00    4.00   10.33    2.00
  0.94    3.44   15.89    4.86   17.03   11.85
  1.00    3.00   11.00    4.00    9.00    1.00
  0.94    1.15    1.44    1.22    1.89   11.85
  0.36    0.46    0.47    0.33    0.37    0.00
  0.00    1.00    0.00    0.00    0.00    0.00
 10.01   21.39    9.92   12.78   14.72  658.42
  2.77    3.03    1.47    3.10    5.38    7.06
  3.00    2.00    1.00    2.00    5.00    2.00
  0.92    1.52    1.47    1.55    1.08    3.53
  0.27    1.93    0.20    0.40    0.00    0.27
  0.00    0.00    0.00    0.00    1.00    0.00
 16.22   15.55   21.65   13.98   35.50    7.68
  1.03    1.10    1.61    6.89    1.23    0.93
  2.00    1.00    2.00    5.00    1.00    4.00
  0.52    1.10    0.81    1.38    1.23    0.23
  0.30    0.24    2.27    0.00    0.97    0.20
  0.00    0.00    0.00    1.00    0.00    2.00
 29.47   10.07   12.94   15.75   10.39    0.00
         4.00    4.00    7.06   24.00
 11.00    2.00   13.33   21.00    4.00    0.00    1.00
  4.38    3.36    3.62    2.26    1.44    2.03    2.67    2.47
2.33
  3.00    2.00    4.00    2.00    1.00    2.00    2.00    2.00
3.00
```

```
  1.46    1.68    0.91    1.13    1.44    1.02    1.34    1.24
0.78
  0.37    0.21    0.20    0.27    0.30    7.58    2.87    3.84
0.41
  0.00    1.00    2.00    0.00    0.00    1.00    0.00    1.00
0.00
  6.92   27.76    7.14    6.35   17.02   22.63   11.78    7.64
20.92
  4.85    1.44    1.51   10.42    7.55    1.80   10.98    0.00
0.00
  4.00    2.00    2.00    5.00    6.00    1.00    2.00    0.00
0.00
  1.21    0.72    0.76    2.08    1.26    1.80    5.49    0.00
0.00
  0.20    8.87    0.34   30.30    0.27    0.24    1.90    0.00
0.00
  1.00    0.00    1.00    0.00    0.00    0.00    0.00    0.00
0.00
 35.03    6.51    7.99    7.11    7.64   15.18  653.35    0.00
0.00
                                 4.00    3.00    4.85   10.00
  1.44    1.51   10.42    7.55    1.80   10.98
  2.00    2.00    5.00    6.00    1.00    2.00
  0.72    0.76    2.08    1.26    1.80    5.49
  8.87    0.34   30.30    0.27    0.24    1.90
  0.00    1.00    0.00    0.00    0.00    0.00
  6.51    7.99    7.11    7.64   15.18  653.35
  1.20    0.53    3.72    1.96    1.54    3.34
  1.00    1.00    3.00    2.00    1.00    2.00
  1.20    0.53    1.24    0.98    1.54    1.67
  0.26    3.14    0.00   10.21    0.00    2.37
  0.00    0.00    0.00    1.00    0.00    0.00
 50.09    7.11   29.43    7.04   14.47   32.44
  3.07    1.10    2.09    8.62    1.94    0.81
  3.00    1.00    2.00    9.00    1.00    1.00
  1.02    1.10    1.05    0.96    1.94    0.81
  9.84    4.17    0.17    0.00    1.07    0.50
  0.00    0.00    0.00    3.00    0.00    0.00
 19.19   20.19   14.18    7.81   11.87    0.00
          4.00    4.00    8.62   28.00
 11.00    3.00   13.33   21.00    1.00    1.00    1.00
  3.07    0.87    0.67    1.57    1.40    1.17    0.80    0.84
2.91
  3.00    1.00    1.00    1.00    1.00    2.00    1.00    1.00
4.00
  1.02    0.87    0.67    1.57    1.40    0.59    0.80    0.84
0.73
  1.27    0.24    0.00    0.20    0.00   10.74    0.20    0.20
0.00
  0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
2.00
```

```
  8.38    9.80   12.98    6.47   18.65   13.14   11.85    6.60
11.77
  6.65    1.05    2.10    2.84    3.57    1.67    1.37    3.38
2.08
 10.00    2.00    1.00    1.00    2.00    2.00    1.00    3.00
1.00
  0.67    0.53    2.10    1.95    1.79    0.84    1.37    1.13
2.08
  0.17    8.81    0.23    0.35    0.47    9.17    0.00    7.87
0.40
  2.00    1.00    0.00    0.00    0.00    0.00    0.00    1.00
0.00
 17.38   12.71   17.52    8.76    5.31   16.02   17.21   17.78
646.52
                                 3.00    4.00    6.65   10.00
  2.84    3.57    1.67    1.37    3.38    2.08
  1.00    2.00    2.00    1.00    3.00    1.00
  1.95    1.79    0.84    1.37    1.13    2.08
  0.35    0.47    9.17    0.00    7.87    0.40
  0.00    0.00    0.00    0.00    1.00    0.00
  8.76    5.31   16.02   17.21   17.78  646.52
  2.77    1.40    9.81    1.40    3.72    3.87
  1.00    1.00    7.00    1.00    3.00    2.00
  2.77    1.40    1.40    1.40    1.24    1.94
  0.33    0.60   32.13   22.23   52.01   38.88
  0.00    0.00    1.00    0.00    1.00    1.00
 11.78   39.04   27.96   64.22   44.95   18.05
  5.71    0.77    1.91    3.50   10.59    1.78
  5.00    1.00    2.00    2.00    8.00    2.00
  1.14    0.77    0.96    1.75    1.32    0.89
  7.88   22.78   47.89    6.48    7.54   18.62
  2.00    0.00    1.00    1.00    2.00    0.00
 35.70   55.39   36.93   14.05   24.82    0.00
         3.00    3.00   10.59   29.00
 11.00    4.00   13.33   21.00    2.00    0.00    1.00
  2.47    1.21    8.78    1.98   11.57    1.70    3.49    1.94
1.60
  1.00    1.00    7.00    2.00    4.00    2.00    2.00    1.00
1.00
  2.47    1.21    1.25    0.99    2.89    0.85    1.75    1.94
1.60
  0.43    0.23    0.20   13.44    3.90    7.78    5.35    0.30
10.25
  0.00    0.00    1.00    0.00    2.00    1.00    0.00    0.00
0.00
 33.83    8.94   26.17   13.44   22.18   25.67    7.65   27.26
34.24
 12.55    4.37    2.01    1.19    4.33    1.20    0.54    0.00
0.00
  7.00    4.00    1.00    2.00    3.00    1.00    1.00    0.00
0.00
```

```
  1.79    1.09    2.01    0.60    1.44    1.20    0.54    0.00
0.00
  0.40    0.30  115.72    0.17   17.99   23.76   12.51    0.00
0.00
  0.00    1.00    0.00    1.00    0.00    0.00    0.00    0.00
0.00
  9.94  122.26   10.50   38.71   33.94   25.22  684.73    0.00
0.00
                                  3.00    3.00   12.55   10.00
  4.37    2.01    1.19    4.33    1.20    0.54
  4.00    1.00    2.00    3.00    1.00    1.00
  1.09    2.01    0.60    1.44    1.20    0.54
  0.30  115.72    0.17   17.99   23.76   12.51
  1.00    0.00    1.00    0.00    0.00    0.00  122.26   10.50
38.71   33.94   25.22  684.73
  4.01   19.74    1.43    4.01   27.20   17.88
  1.00    4.00    1.00    3.00    2.00    7.00
  4.01    4.94    1.43    1.34   13.60    2.55
  0.20    0.20    0.27    0.17    0.14    0.17
  0.00    1.00    0.00    0.00    0.00    1.00
  8.34   13.71   27.07    7.44   13.08   23.30
 15.29   12.62    3.37    5.71   14.43    2.73
 14.00    9.00    3.00    7.00   11.00    3.00
  1.09    1.40    1.12    0.82    1.31    0.91
 15.49    0.43    0.43    6.20    0.60    0.10
  1.00    2.00    1.00    1.00    0.00    0.00
  5.90   16.98   11.61   24.93   10.44    0.00
          4.00    4.00   27.20   23.00
 12.00    1.00   16.17   34.00    4.00    0.00    2.00    3.00
4.00
  1.43    3.78    4.94    1.73    1.97    1.56    6.77    2.08
1.03
  2.00    1.00    1.00    1.00    1.00    1.00    2.00    1.00
1.00
  0.72    3.78    4.94    1.73    1.97    1.56    3.39    2.08
1.03
 16.52    0.00    0.00    0.00    0.00    0.00    1.74    0.00
0.47
  0.00    0.00    0.00    0.00    0.00    0.00    1.00    0.00
0.00
  8.04   11.77   19.62   12.35   14.82   11.98   18.99   34.69
16.72
  3.20    1.63    4.17    7.61    7.77    1.80    5.50    0.00
0.00
  2.00    2.00    1.00    2.00    6.00    2.00    2.00    0.00
0.00
  1.60    0.82    4.17    3.81    1.30    0.90    2.75    0.00
0.00
  0.00    0.00    0.00    0.00    1.17    0.26    0.00    0.00
0.00
  1.00    0.00    0.00    0.00    2.00    0.00    0.00    0.00
0.00
```

20.62	13.68	16.72	12.58	10.94	13.65	649.01	0.00
0.00							
				4.00	4.00	6.77	7.00
1.63	4.17	7.61	7.77	1.80	5.50		
2.00	1.00	2.00	6.00	2.00	2.00		
0.82	4.17	3.81	1.30	0.90	2.75		
0.00	0.00	0.00	1.17	0.26	0.00		
0.00	0.00	0.00	2.00	0.00	0.00		
13.68	16.72	12.58	10.94	13.65	649.01		
7.74	12.88	5.69	6.27	5.94	5.68		
1.00	4.00	3.00	3.00	3.00	3.00		
7.74	3.22	1.90	2.09	1.98	1.89		
0.00	0.00	0.00	0.00	0.00	0.00		
0.00	0.00	1.00	0.00	0.00	0.00		
8.61	9.47	6.07	8.44	9.77	8.70		
3.06	3.42	3.27	4.61	5.27	4.04		
2.00	3.00	2.00	3.00	3.00	2.00		
1.53	1.14	1.64	1.54	1.76	2.02		
0.00	0.00	0.00	0.00	0.29	0.00		
0.00	0.00	0.00	1.00	1.00	0.00		
16.15	10.67	9.47	10.98	11.66	0.00		
	4.00	4.00	12.88	20.00			
12.00	2.00	16.17	34.00	1.00	1.00	2.00	
6.80	8.68	4.84	9.58	4.00	3.28	8.42	2.43
2.49							
4.00	3.00	1.00	4.00	2.00	2.00	4.00	1.00
2.00							
1.70	2.89	4.84	2.40	2.00	1.64	2.11	2.43
1.25							
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00							
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00							
11.22	8.61	7.91	8.65	8.74	8.64	7.24	6.48
9.14							
5.20	2.19	6.33	3.87	1.20	1.27	1.80	11.92
6.41							
2.00	2.00	2.00	2.00	3.00	1.00	1.00	3.00
2.00							
2.60	1.10	3.17	1.94	0.40	1.27	1.80	3.97
3.21							
0.00	0.00	0.00	0.00	0.00	0.00	0.30	0.00
0.00							
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00							
14.83	9.84	16.28	15.68	9.44	27.76	14.71	8.34
674.60							
				4.00	4.00	9.58	4.00
3.87	1.20	1.27	1.80	11.92	6.41		
2.00	3.00	1.00	1.00	3.00	2.00		
1.94	0.40	1.27	1.80	3.97	3.21		
0.00	0.00	0.00	0.30	0.00	0.00		
0.00	0.00	0.00	0.00	0.00	0.00		

```
 15.68    9.44   27.76   14.71    8.34  674.60
  1.97    2.77    2.26    0.77    2.44    1.31
  1.00    2.00    1.00    2.00    1.00    2.00
  1.97    1.39    2.26    0.39    2.44    0.66
  0.00    0.00    0.00    2.96    8.87    0.00
  0.00    0.00    0.00    0.00    0.00    0.00
 11.14    9.89   12.51   19.55    9.57   10.68
  2.00    0.55    3.14    0.57    1.37    1.09
  3.00    1.00    1.00    1.00    1.00    2.00
  0.67    0.55    3.14    0.57    1.37    0.55
  0.00    0.36    0.50    1.33    2.77    0.00
  0.00    0.00    0.00    0.00    0.00    0.00
 10.70   20.21   12.08   12.84   12.21    0.00
         4.00    3.00    3.14   27.00
 12.00    3.00   16.17   34.00    2.00    0.00    2.00
 16.24   37.37   11.05    0.94    1.60    2.57    8.06    2.47
23.74
  6.00    9.00    4.00    1.00    1.00    2.00    3.00    2.00
9.00
  2.71    4.15    2.76    0.94    1.60    1.29    2.69    1.24
2.64
  0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00
  0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00
  9.44    8.19   10.74    8.74    9.74    9.85    9.01   18.75
8.14
 27.05   15.71    2.22    4.57    3.10    4.75    7.68    0.00
0.00
  6.00    3.00    1.00    5.00    1.00    2.00    3.00    0.00
0.00
  4.51    5.24    2.22    0.91    3.10    2.38    2.56    0.00
0.00
  0.00    0.00    0.00    0.00    0.01    0.00    0.00    0.00
0.00
  1.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00
  6.78    6.74    9.03    8.28    7.13    9.53  689.00    0.00
0.00
                                  3.00    4.00   37.37    2.00
 15.71    2.22    4.57    3.10    4.75    7.68
  3.00    1.00    5.00    1.00    2.00    3.00
  5.24    2.22    0.91    3.10    2.38    2.56
  0.00    0.00    0.00    0.01    0.00    0.00
  0.00    0.00    0.00    0.00    0.00    0.00
  6.74    9.03    8.28    7.13    9.53  689.00
  4.57    2.55    9.35    0.90    2.91    0.97
  5.00    2.00    9.00    1.00    1.00    3.00
  0.91    1.28    1.04    0.90    2.91    0.32
  0.00    0.00    0.00    0.00    0.00    0.00
  0.00    0.00    0.00    0.00    0.00    0.00
  8.18    7.54    7.67    9.78    9.77   10.08
  5.52    7.65    6.85    9.49    5.64    3.73
```

2.00	6.00	5.00	5.00	2.00	5.00		
2.76	1.28	1.37	1.90	2.82	0.75		
0.00	0.00	0.00	0.00	0.00	0.00		
0.00	0.00	0.00	1.00	0.00	0.00		
10.71	5.66	8.04	11.30	12.93	0.00		
	4.00	4.00	9.49	28.00			
12.00	4.00	16.17	34.00	3.00	1.00	2.00	
12.58	3.10	1.20	5.19	2.58	2.51	2.01	10.64
4.81							
2.00	1.00	1.00	3.00	2.00	4.00	2.00	4.00
4.00							
6.29	3.10	1.20	1.73	1.29	0.63	1.01	2.66
1.20							
0.00	0.00	1.14	0.00	0.00	0.00	0.00	0.00
0.00							
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00							
11.18	10.71	14.78	9.89	9.04	8.24	7.04	8.31
7.84							
7.32	5.98	5.88	2.85	3.93	4.84	7.69	2.08
2.66							
6.00	3.00	4.00	2.00	3.00	2.00	5.00	3.00
4.00							
1.22	1.99	1.47	1.43	1.31	2.42	1.54	0.69
0.67							
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00							
0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00
1.00							
9.41	9.97	8.90	9.01	6.75	8.38	8.51	8.61
675.76							
				4.00	4.00	12.58	1.00
2.85	3.93	4.84	7.69	2.08	2.66		
2.00	3.00	2.00	5.00	3.00	4.00		
1.43	1.31	2.42	1.54	0.69	0.67		
0.00	0.00	0.00	0.00	0.00	0.00		
0.00	0.00	0.00	1.00	0.00	1.00		
9.01	6.75	8.38	8.51	8.61	675.76		
3.51	2.64	1.15	5.62	6.02	4.93		
2.00	1.00	1.00	4.00	4.00	3.00		
1.76	2.64	1.15	1.41	1.51	1.64		
0.00	0.00	0.00	0.00	0.00	0.00		
0.00	0.00	0.00	1.00	1.00	0.00		
9.00	9.91	8.52	7.17	6.51	9.81		
49.15	27.09	2.07	2.10	3.84	1.33		
13.00	9.00	1.00	2.00	2.00	1.00		
3.78	3.01	2.07	1.05	1.92	1.33		
0.00	0.00	0.00	0.00	0.00	0.00		
0.00	0.00	0.00	0.00	0.00	0.00		
4.41	8.64	7.44	8.14	8.38	0.00		
	3.00	3.00	49.15	25.00			

```
 13.00    1.00   11.25   56.00    1.00    1.00    1.00    1.00
1.00
 11.23    6.61    9.68    4.37   16.76    1.84    1.80    1.75
10.24
  4.00    3.00    4.00    1.00    6.00    1.00    1.00    1.00
6.00
  2.81    2.20    2.42    4.37    2.79    1.84    1.80    1.75
1.71
  0.73    0.60    2.07    0.80    0.70    0.80    0.55    0.30
0.70
  1.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00
  9.15   11.23   11.65    9.44   14.32   19.13   19.13   10.84
10.34
 23.03    1.41    1.51    4.12    1.53    1.35    3.76    1.77
0.70
  6.00    2.00    2.00    2.00    1.00    2.00    3.00    2.00
1.00
  3.84    0.71    0.76    2.06    1.53    0.68    1.25    0.89
0.70
  0.33    0.33    4.13   13.61    0.00    0.00    0.00    0.00
4.10
  2.00    0.00    1.00    1.00    0.00    0.00    0.00    0.00
0.00
 13.38   15.31   27.09    9.17   19.09   25.59   18.72   14.14
661.90
                                 4.00    4.00   23.03   10.00
  4.12    1.53    1.35    3.76    1.77    0.70
  2.00    1.00    2.00    3.00    2.00    1.00
  2.06    1.53    0.68    1.25    0.89    0.70
 13.61    0.00    0.00    0.00    0.00    4.10
  1.00    0.00    0.00    0.00    0.00    0.00
  9.17   19.09   25.59   18.72   14.14  661.90
  3.16    0.41    1.02    2.50    2.53    2.13
  1.00    1.00    2.00    3.00    2.00    3.00
  3.16    0.41    0.51    0.83    1.27    0.71
  0.30    2.13    1.80    1.33    0.14    0.03
  0.00    0.00    0.00    1.00    0.00    0.00
 10.12   17.71   11.70    8.18    8.74   12.99
  0.60    5.05    2.03    3.54    2.80    2.55
  1.00    1.00    1.00    2.00    1.00    4.00
  0.60    5.05    2.03    1.77    2.80    0.64
  1.44    1.13    1.11   25.67    0.37    0.00
  0.00    0.00    0.00    0.00    0.00    0.00
 34.16   12.95   39.74    9.84    9.71    0.00
         4.00    4.00    5.05   26.00
 13.00    2.00   11.25   56.00    2.00    0.00    1.00
  3.83   12.15    7.32    3.23   24.54    8.38    4.40    8.45
6.80
  3.00    3.00    3.00    2.00   13.00    2.00    2.00    2.00
1.00
```

```
  1.28    4.05    2.44    1.62    1.89    4.19    2.20    4.23
6.80
  0.26    1.20    0.33    1.27    1.14    0.24    0.50    0.73
1.84
  0.00    0.00    1.00    0.00    0.00    0.00    0.00    0.00
0.00
 14.24   12.41   11.75    9.81   10.35   10.67   23.32   11.61
10.19
  6.81    4.44    4.43    3.75    4.50    9.51    6.84    0.00
0.00
  4.00    2.00    2.00    3.00    2.00    3.00    2.00    0.00
0.00
  1.70    2.22    2.22    1.25    2.25    3.17    3.42    0.00
0.00
  0.34    1.20    0.17    0.63    0.27    0.40    0.67    0.00
0.00
  2.00    1.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00
  9.70   10.28   11.68   13.92    9.31   11.71  677.07    0.00
0.00
                                  3.00    4.00   24.54    5.00
  4.44    4.43    3.75    4.50    9.51    6.84
  2.00    2.00    3.00    2.00    3.00    2.00
  2.22    2.22    1.25    2.25    3.17    3.42
  1.20    0.17    0.63    0.27    0.40    0.67
  1.00    0.00    0.00    0.00    0.00    0.00
 10.28   11.68   13.92    9.31   11.71  677.07
 19.11   23.26    6.33    2.87   31.95   25.12
  5.00    6.00    1.00    2.00    5.00    4.00
  3.82    3.88    6.33    1.44    6.39    6.28
  0.47    0.54    1.01    0.56    3.93    1.17
  0.00    1.00    0.00    1.00    0.00    0.00
 11.58    8.21    8.41   12.91   10.35    8.11
  4.34   26.47   14.82    4.20   28.75    7.34
  2.00    7.00    3.00    2.00    7.00    2.00
  2.17    3.78    4.94    2.10    4.11    3.67
  0.26    0.37    0.93    4.17    0.00    0.47
  0.00    0.00    0.00    0.00    0.00    0.00
 11.18    8.74   13.94   15.29   14.91    0.00
          4.00    4.00   31.95   23.00
 13.00    3.00   11.25   56.00    3.00    1.00    1.00
  6.35    2.68    1.20    1.51    6.26    7.24    2.86    1.37
13.29
  3.00    3.00    2.00    1.00    3.00    2.00    1.00    1.00
4.00
  2.12    0.89    0.60    1.51    2.09    3.62    2.86    1.37
3.32
  0.00    1.57    0.50    0.00    0.00    0.00    0.13    0.00
1.93
  0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00
```

```
 10.04  10.81   7.57  10.38  15.88   7.78  25.44  10.90
19.50
  0.63  17.61   1.60   1.34   5.04  36.33   1.81   4.87
19.27
  1.00   5.00   1.00   2.00   1.00   6.00   1.00   2.00
3.00
  0.63   3.52   1.60   0.67   5.04   6.06   1.81   2.44
6.42
  1.30   0.00   0.00   1.03   0.00   0.14   0.00   3.77
2.64
  0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
0.00
  9.51   8.08   8.07   7.91   6.71   6.40  10.54  10.62
692.80
                                   4.00   4.00  17.61  11.00
  1.34   5.04  36.33   1.81   4.87  19.27
  2.00   1.00   6.00   1.00   2.00   3.00
  0.67   5.04   6.06   1.81   2.44   6.42
  1.03   0.00   0.14   0.00   3.77   2.64
  0.00   0.00   0.00   0.00   0.00   0.00
  7.91   6.71   6.40  10.54  10.62 692.80
 14.59  14.89   4.64  22.55   2.18   9.88
  4.00   3.00   3.00   6.00   1.00   4.00
  3.65   4.96   1.55   3.76   2.18   2.47
  0.60  40.54   0.00   3.43   0.00   0.74
  0.00   0.00   0.00   1.00   0.00   0.00
 52.28   7.37  30.55   6.77   8.14  11.01
  1.37   2.57   3.68   3.83  12.59   0.90
  1.00   2.00   3.00   3.00   4.00   1.00
  1.37   1.29   1.23   1.28   3.15   0.90
  0.77   2.64   0.27   0.91   0.00   3.30
  0.00   0.00   0.00   0.00   0.00   0.00
 10.21   7.97   9.15  10.47  11.54   0.00
         4.00   4.00  22.55  22.00
 13.00   4.00  11.25  56.00   4.00   0.00   1.00
 21.16  13.46   5.65   9.93   8.67   3.23   4.00   4.85
7.35
  7.00   5.00   5.00   4.00   3.00   2.00   2.00   3.00
2.00
  3.02   2.69   1.13   2.48   2.89   1.62   2.00   1.62
3.68
  0.37   1.10   0.00   0.00   0.17   0.37   0.84   1.07
0.47
  0.00   1.00   0.00   0.00   0.00   0.00   0.00   0.00
0.00
 10.54   6.81   6.03  43.01   9.38   7.18   7.11  19.25
6.71
  3.83   4.24   3.26   8.25  11.62  45.76   5.80   0.00
0.00
  1.00   2.00   1.00   2.00   5.00  11.00   2.00   0.00
0.00
```

```
  3.83    2.12    3.26    4.13    2.32    4.16    2.90    0.00
0.00
  0.30    0.00    0.00    0.93    0.37    0.23    0.00    0.00
0.00
  0.00    0.00    0.00    0.00    1.00    0.00    0.00    0.00
0.00
  9.81   31.70    7.24    6.54    4.33    6.88  714.42    0.00
0.00
                                  3.00    4.00   21.16    1.00
  4.24    3.26    8.25   11.62   45.76    5.80
  2.00    1.00    2.00    5.00   11.00    2.00
  2.12    3.26    4.13    2.32    4.16    2.90
  0.00    0.00    0.93    0.37    0.23    0.00
  0.00    0.00    0.00    1.00    0.00    0.00
 31.70    7.24    6.54    4.33    6.88  714.42
  7.65    1.94    3.91    3.21    2.06   10.18
  2.00    1.00    1.00    2.00    1.00    3.00
  3.83    1.94    3.91    1.61    2.06    3.39
  1.37    1.97    0.20    0.30    0.00   10.55
  0.00    0.00    0.00    0.00    0.00    0.00
  9.83    9.31   11.30    7.44   18.26    9.71
  4.74    5.90    6.89    1.96    1.06    4.24
  2.00    2.00    2.00    1.00    1.00    1.00
  2.37    2.95    3.45    1.96    1.06    4.24
  0.56    1.10    0.00    0.00    1.14    1.40
  0.00    0.00    0.00    0.00    0.00    0.00
  9.45    6.91   19.33   17.29   10.01    0.00
          4.00    4.00   10.18   24.00
 14.00    1.00   19.67   36.00    2.00    1.00    1.00    1.00
2.00
  2.00    1.43    3.64    1.34    0.77    0.59    1.03    0.37
0.30
  2.00    3.00    3.00    2.00    1.00    1.00    1.00    1.00
1.00
  1.00    0.48    1.21    0.67    0.77    0.59    1.03    0.37
0.30
  0.66    0.30    0.00   56.22    0.24    0.66    0.40    0.93
28.36
  0.00    0.00    2.00    1.00    0.00    0.00    0.00    0.00
0.00
 25.80   14.62   99.12    4.57   11.04   29.17   15.82   35.27
7.68
  1.13    0.34    1.13    2.01    2.15    0.50    1.27    0.40
0.47
  1.00    1.00    1.00    2.00    3.00    1.00    1.00    2.00
1.00
  1.13    0.34    1.13    1.01    0.72    0.50    1.27    0.20
0.47
  0.00    0.00    0.37   12.04    0.00    0.04    0.00    5.94
0.00
  0.00    0.00    0.00    0.00    0.00    0.00    0.00    1.00
0.00
```

25.09	29.59	21.79	50.24	28.40	29.76	36.77	9.24
773.99							
				4.00	4.00	3.64	3.00
2.01	2.15	0.50	1.27	0.40	0.47		
2.00	3.00	1.00	1.00	2.00	1.00		
1.01	0.72	0.50	1.27	0.20	0.47		
12.04	0.00	0.04	0.00	5.94	0.00		
0.00	0.00	0.00	0.00	1.00	0.00		
50.24	28.40	29.76	36.77	9.24	773.99		
1.13	0.40	0.66	2.33	0.67	0.40		
2.00	1.00	1.00	3.00	1.00	1.00		
0.57	0.40	0.66	0.78	0.67	0.40		
12.95	17.33	1.04	18.82	0.90	2.10		
0.00	0.00	0.00	2.00	0.00	0.00		
37.35	19.58	27.53	42.75	16.28	32.96		
0.67	2.54	2.64	0.07	1.07	0.36		
1.00	1.00	2.00	1.00	2.00	1.00		
0.67	2.54	1.32	0.07	0.54	0.36		
9.44	6.17	0.00	0.10	0.00	19.52		
0.00	0.00	0.00	0.00	1.00	0.00		
25.89	21.89	8.14	8.01	34.37	0.00		
	4.00	4.00	2.64	27.00			
14.00	2.00	19.67	36.00	3.00	0.00	1.00	
1.54	1.54	0.30	0.84	0.24	0.45	0.66	0.33
0.37							
1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1.00							
1.54	1.54	0.30	0.84	0.24	0.45	0.66	0.33
0.37							
17.05	17.05	0.00	33.73	4.17	8.90	13.62	0.00
0.96							
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00							
26.56	26.56	74.80	17.01	51.35	25.68	33.14	39.34
29.89							
0.20	0.37	0.80	0.23	4.73	1.14	0.27	0.00
0.00							
1.00	2.00	1.00	1.00	4.00	1.00	1.00	0.00
0.00							
0.20	0.19	0.80	0.23	1.18	1.14	0.27	0.00
0.00							
22.45	1.91	0.27	0.00	14.15	8.24	6.30	0.00
0.00							
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00							
9.92	26.46	12.55	27.23	14.64	39.90	690.55	0.00
0.00							
				4.00	4.00	1.54	2.00
0.37	0.80	0.23	4.73	1.14	0.27		
2.00	1.00	1.00	4.00	1.00	1.00		
0.19	0.80	0.23	1.18	1.14	0.27		
1.91	0.27	0.00	14.15	8.24	6.30		
0.00	0.00	0.00	0.00	0.00	0.00		

```
 26.46  12.55  27.23  14.64  39.90 690.55
  0.50   0.26   0.10   1.43   0.40   1.35
  1.00   1.00   1.00   2.00   1.00   1.00
  0.50   0.26   0.10   0.72   0.40   1.35
  0.23   6.78   0.00  42.54   0.00  13.80
  0.00   0.00   0.00   1.00   0.00   0.00
 21.10  52.35  57.39   6.18  22.01  66.96
  2.34   0.57   2.41   0.73   0.36   0.30
  1.00   2.00   1.00   1.00   1.00   1.00
  2.34   0.29   2.41   0.73   0.36   0.30
 21.72   2.10   0.00   0.90   0.00  18.18
  0.00   1.00   0.00   0.00   0.00   0.00
  7.80   6.97  37.10  22.23  23.96   0.00
         4.00   4.00   2.41  27.00
 14.00   3.00  19.67  36.00   4.00   1.00   1.00
  0.50   1.86   0.30   1.07   0.79   1.40   0.94   0.93
0.74
  1.00   1.00   1.00   1.00   1.00   1.00   2.00   1.00
1.00
  0.50   1.86   0.30   1.07   0.79   1.40   0.47   0.93
0.74
  0.47   4.54   0.30  18.78   0.00  23.53   4.44   4.90
10.47
  0.00   0.00   0.00   0.00   0.00   0.00   0.00   0.00
0.00
 12.04  20.16  26.69  13.09  35.04  18.15  31.73  16.45
20.69
  0.40   2.88   0.90   0.27   0.74   8.35   0.61   3.16
2.80
  1.00   1.00   1.00   1.00   1.00   2.00   1.00   1.00
1.00
  0.40   2.88   0.90   0.27   0.74   4.18   0.61   3.16
2.80
  5.08  12.88   0.13   0.00   1.00   1.70   0.00   0.00
1.53
  0.00   0.00   0.00   0.00   0.00   1.00   0.00   0.00
0.00
 19.45  12.50   7.14  11.78  11.90   6.60   8.27  19.93
700.62
                                    3.00   4.00   2.88  11.00
  0.27   0.74   8.35   0.61   3.16   2.80
  1.00   1.00   2.00   1.00   1.00   1.00
  0.27   0.74   4.18   0.61   3.16   2.80
  0.00   1.00   1.70   0.00   0.00   1.53
  0.00   0.00   1.00   0.00   0.00   0.00
 11.78  11.90   6.60   8.27  19.93 700.62
  0.16   1.63   3.55   0.23   1.47   0.80
  1.00   1.00   3.00   1.00   1.00   1.00
  0.16   1.63   1.18   0.23   1.47   0.80
  0.80  14.38   0.00   2.07   0.36   2.17
  0.00   0.00   0.00   0.00   0.00   0.00
 28.87  11.04  27.66  19.58   9.25   6.50
  4.55   0.40   0.84   0.47   1.71   4.84
```

```
  4.00    1.00    2.00    1.00    1.00    2.00
  1.14    0.40    0.42    0.47    1.71    2.42
  0.27    0.00    2.71   13.75   17.08    0.00
  2.00    0.00    0.00    0.00    0.00    0.00
  7.54   12.61   26.68   26.79   21.18    0.00
          4.00    4.00    4.84   30.00
 14.00    4.00   19.67   36.00    1.00    0.00    1.00
  1.03    0.40    0.37    0.24    0.57    0.71    1.44    0.50
2.54
  1.00    1.00    1.00    1.00    1.00    1.00    1.00    1.00
1.00
  1.03    0.40    0.37    0.24    0.57    0.71    1.44    0.50
2.54
 13.98   18.25    1.27    0.00   44.77    0.63    0.00   14.37
9.34
  0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00
 31.44   23.65   15.14   63.56   12.58   14.61   30.78   46.12
8.50
  1.23    0.64    1.52    2.40    1.89    0.23    1.86    0.00
0.00
  3.00    1.00    1.00    1.00    2.00    1.00    1.00    0.00
0.00
  0.41    0.64    1.52    2.40    0.95    0.23    1.86    0.00
0.00
  0.00    0.93    1.77    2.60    0.00    0.00    0.00    0.00
0.00
  2.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00
 23.52   19.34   19.34   13.95   33.24   11.92  622.52    0.00
0.00
                                 4.00    3.00    2.54    9.00
  0.64    1.52    2.40    1.89    0.23    1.86
  1.00    1.00    1.00    2.00    1.00    1.00
  0.64    1.52    2.40    0.95    0.23    1.86
  0.93    1.77    2.60    0.00    0.00    0.00
  0.00    0.00    0.00    0.00    0.00    0.00
 19.34   19.34   13.95   33.24   11.92  622.52
  0.50    0.33    0.57    0.71    1.28    0.27
  1.00    1.00    1.00    1.00    1.00    1.00
  0.50    0.33    0.57    0.71    1.28    0.27
  5.25   11.18    0.00   34.83    0.00    0.00
  0.00    0.00    0.00    0.00    0.00    0.00
 17.98   29.80   56.58    7.60   19.61   17.75
  1.66    2.04    0.74    0.70    4.71    0.30
  2.00    1.00    1.00    1.00    3.00    1.00
  0.83    2.04    0.74    0.70    1.57    0.30
  0.00   18.75    0.67    0.00    0.00    0.00
  0.00    0.00    0.00    0.00    1.00    0.00
 52.75   19.65    8.20   55.76   24.86    0.00
          4.00    4.00    4.71   29.00
```

```
 15.00    1.00   11.00   38.00    3.00    0.00    2.00    2.00
3.00
  1.48    1.66    2.24    0.87    3.44    0.47    3.61    0.77
0.74
  4.00    4.00    3.00    2.00    7.00    1.00    5.00    2.00
2.00
  0.37    0.42    0.75    0.44    0.49    0.47    0.72    0.39
0.37
  0.20    0.24    0.33    0.00    0.00    1.27    0.17    0.26
0.47
  0.00    0.00    0.00    1.00    1.00    0.00    1.00    0.00
0.00
  8.13    7.44    9.75    8.48    5.54    8.11    8.97    9.34
9.37
  0.91    0.54    1.94    1.69    0.47    0.70    1.14    0.00
0.00
  3.00    1.00    5.00    4.00    1.00    2.00    3.00    0.00
0.00
  0.30    0.54    0.39    0.42    0.47    0.35    0.38    0.00
0.00
  1.10    0.07    0.05    0.70    0.77    0.26    0.00    0.00
0.00
  1.00    0.00    3.00    0.00    0.00    0.00    1.00    0.00
0.00
  7.07    8.04    6.64    7.21   11.21    8.55  699.78    0.00
0.00
                                  4.00    4.00    3.61    7.00
  0.54    1.94    1.69    0.47    0.70    1.14
  1.00    5.00    4.00    1.00    2.00    3.00
  0.54    0.39    0.42    0.47    0.35    0.38
  0.07    0.05    0.70    0.77    0.26    0.00
  0.00    3.00    0.00    0.00    0.00    1.00
  8.04    6.64    7.21   11.21    8.55  699.78
  2.78    1.93    1.45    0.50    1.57    0.57
  5.00    3.00    5.00    2.00    6.00    3.00
  0.56    0.64    0.29    0.25    0.26    0.19
  0.40    0.24    0.04    0.64    0.30    0.36
  0.00    0.00    0.00    1.00    2.00    1.00
  7.39    9.11    8.44    5.68    7.21    9.45
  1.07    0.53    1.18    0.16    0.80    2.21
  3.00    2.00    3.00    1.00    2.00    4.00
  0.36    0.27    0.39    0.16    0.40    0.55
  0.23    0.47    0.20    0.00    0.30    0.44
  1.00    1.00    2.00    0.00    1.00    0.00
 12.78   12.34    4.44    7.98    6.38    0.00
         4.00    4.00    2.78   19.00
 15.00    2.00   11.00   38.00    4.00    1.00    2.00
  0.30    1.07    0.33    0.97    0.18    0.13    0.66    0.23
0.16
  1.00    3.00    1.00    2.00    2.00    1.00    2.00    2.00
1.00
```

```
  0.30    0.36    0.33    0.49    0.09    0.13    0.33    0.12
0.16
  1.13    0.34    0.23    0.36    0.50    0.14    0.30    3.03
0.17
  0.00    1.00    0.00    1.00    0.00    0.00    1.00    0.00
0.00
  8.41    5.80    7.74    9.84   10.78   14.45   12.65   13.42
11.31
  0.30    0.33    0.36    0.21    0.59    0.63    0.25    0.63
0.30
  1.00    1.00    1.00    1.00    2.00    2.00    2.00    1.00
1.00
  0.30    0.33    0.36    0.21    0.30    0.32    0.13    0.63
0.30
  0.33    0.30    0.00    0.23    0.97    0.30    0.70    0.00
0.26
  0.00    0.00    0.00    0.00    0.00    1.00    0.00    0.00
0.00
  8.81    8.68   10.15    8.27    7.97    4.85    6.99    7.41
630.08
                                   4.00    4.00    1.07    2.00
  0.21    0.59    0.63    0.25    0.63    0.30
  1.00    2.00    2.00    2.00    1.00    1.00
  0.21    0.30    0.32    0.13    0.63    0.30
  0.23    0.97    0.30    0.70    0.00    0.26
  0.00    0.00    1.00    0.00    0.00    0.00
  8.27    7.97    4.85    6.99    7.41  630.08
  0.69    0.30    0.18    0.44    0.90    0.13
  2.00    2.00    1.00    1.00    3.00    1.00
  0.35    0.15    0.18    0.44    0.30    0.13
  0.00    0.00    0.23    0.17    0.44    0.84
  0.00    0.00    0.00    0.00    1.00    0.00
  7.21   14.52   10.83    9.31   27.76    6.34
  0.42    0.40    0.16    0.17    0.81    0.37
  1.00    1.00    1.00    1.00    2.00    1.00
  0.42    0.40    0.16    0.17    0.41    0.37
  0.37    0.00    0.12    0.16    0.47    0.50
  0.00    0.00    0.00    0.00    1.00    0.00
 13.10   17.59    8.57    7.91    8.80    0.00
         4.00    4.00    0.90   23.00
 15.00    3.00   11.00   38.00    1.00    1.00    2.00
  0.57    3.13    1.40    1.79    0.23    0.24    0.96    0.30
0.73
  3.00    8.00    4.00    5.00    2.00    1.00    3.00    1.00
3.00
  0.19    0.39    0.35    0.36    0.12    0.24    0.32    0.30
0.24
  0.84    0.23    0.19    0.25    0.44    0.23    0.00    0.06
0.27
  1.00    2.00    2.00    1.00    1.00    0.00    0.00    0.00
2.00
```

```
  8.41    8.64   16.17    6.24    7.48    7.94    6.64   21.13
7.77
  0.37    0.16    0.46    0.30    0.44    0.27    0.57    0.12
1.23
  1.00    1.00    1.00    1.00    1.00    1.00    3.00    1.00
4.00
  0.37    0.16    0.46    0.30    0.44    0.27    0.19    0.12
0.31
  0.30    0.21    0.00    0.23    0.26    0.23    0.23    0.27
0.63
  0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
2.00
 40.78    6.48   16.35    6.24    9.44    6.80    7.78   18.79
635.79
                                    4.00    4.00    3.13    2.00
  0.30    0.44    0.27    0.57    0.12    1.23
  1.00    1.00    1.00    3.00    1.00    4.00
  0.30    0.44    0.27    0.19    0.12    0.31
  0.23    0.26    0.23    0.23    0.27    0.63
  0.00    0.00    0.00    0.00    0.00    2.00
  6.24    9.44    6.80    7.78   18.79  635.79
  1.25    0.24    0.71    0.50    0.33    0.66
  4.00    2.00    3.00    2.00    1.00    1.00
  0.31    0.12    0.24    0.25    0.33    0.66
  0.00    0.33    0.43    0.50    0.44    0.00
  2.00    0.00    0.00    0.00    0.00    0.00
  4.47    9.94    8.32    7.95    6.71    9.25
  0.43    0.47    0.29    0.10    0.44    0.24
  1.00    1.00    1.00    1.00    1.00    1.00
  0.43    0.47    0.29    0.10    0.44    0.24
  0.00    0.10    0.30    1.06    0.00    0.63
  0.00    0.00    0.00    0.00    0.00    0.00
 16.55    6.27    7.65    5.74   15.71    0.00
          4.00    4.00    1.25   19.00
 15.00    4.00   11.00   38.00    2.00    0.00    2.00
  1.35    0.87    0.71    0.49    0.40    3.41    0.57    0.25
0.16
  5.00    2.00    3.00    1.00    1.00    7.00    1.00    2.00
1.00
  0.27    0.44    0.24    0.49    0.40    0.49    0.57    0.13
0.16
  0.10    0.13    0.00    0.31    0.20    2.44    0.17    0.30
0.17
  1.00    1.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00
  6.33   26.95    7.61    9.59   15.51    6.08    7.57    6.26
6.91
  0.54    1.48    0.38    1.22    0.49    0.28    0.31    0.00
0.00
  1.00    3.00    1.00    4.00    2.00    1.00    1.00    0.00
0.00
```

```
  0.54    0.49    0.38    0.31    0.25    0.28    0.31    0.00
0.00
  0.33    0.20   36.51   30.37    0.20    0.37    0.21    0.00
0.00
  0.00    2.00    0.00    0.00    1.00    0.00    0.00    0.00
0.00
  7.30   43.65    9.56    8.66    8.14   11.87  606.44    0.00
0.00
                                  4.00    4.00    3.41    6.00
  1.48    0.38    1.22    0.49    0.28    0.31
  3.00    1.00    4.00    2.00    1.00    1.00
  0.49    0.38    0.31    0.25    0.28    0.31
  0.20   36.51   30.37    0.20    0.37    0.21
  2.00    0.00    0.00    1.00    0.00    0.00
 43.65    9.56    8.66    8.14   11.87  606.44
  1.00    0.63    0.85    0.85    0.64    1.19
  2.00    2.00    1.00    1.00    1.00    3.00
  0.50    0.32    0.85    0.85    0.64    0.40
  0.00    0.00    0.00    0.00    0.09    0.10
  0.00    1.00    0.00    0.00    0.00    2.00
  7.01   10.95    7.76   12.32    7.67   13.34
  0.34    0.30    0.74    1.34    0.69    0.93
  1.00    1.00    1.00    3.00    3.00    4.00
  0.34    0.30    0.74    0.45    0.23    0.23
  0.73    0.34    0.30    0.09    0.40    0.27
  0.00    0.00    0.00    0.00    1.00    2.00
  9.15   14.37    5.77   10.82    6.58    0.00
         4.00    4.00    1.34   28.00
 16.00    1.00   17.50   68.00    4.00    0.00    1.00    2.00
4.00
 13.98    1.37    0.43    8.64    2.92    1.71    4.39    1.73
0.81
  1.00    3.00    2.00    1.00    2.00    2.00    6.00    1.00
2.00
 13.98    0.46    0.22    8.64    1.46    0.86    0.73    1.73
0.41
  0.00    0.00    0.75    0.00    0.00    0.00    0.00    0.00
0.03
  0.00    0.00    0.00    0.00    1.00    1.00    2.00    0.00
0.00
 15.88    7.91   39.80    6.67    3.79   19.82    6.81    8.34
14.72
  0.56    1.17    3.81   13.58   16.01    4.51    6.97    0.00
0.00
  1.00    2.00    3.00    4.00    6.00    2.00    2.00    0.00
0.00
  0.56    0.59    1.27    3.40    2.67    2.26    3.49    0.00
0.00
  0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00
  0.00    0.00    0.00    0.00    1.00    0.00    0.00    0.00
0.00
```

```
 23.96   11.24   10.48    7.30    6.94    8.35 633.15    0.00
0.00
                                  3.00    3.00   13.98    1.00
  1.17    3.81   13.58   16.01    4.51    6.97
  2.00    3.00    4.00    6.00    2.00    2.00
  0.59    1.27    3.40    2.67    2.26    3.49
  0.00    0.00    0.00    0.00    0.00    0.00
  0.00    0.00    0.00    1.00    0.00    0.00
 11.24   10.48    7.30    6.94    8.35  633.15
  0.73    2.17   16.60    1.63    1.20    1.65
  1.00    4.00    5.00    2.00    2.00    1.00
  0.73    0.54    3.32    0.82    0.60    1.65
  0.00    0.00    0.00   60.97    1.48    1.53
  0.00    0.00    0.00    0.00    0.00    0.00
 67.63   58.33   68.67   23.33   29.92   31.39
  7.40    0.76    2.57    2.30    6.64    0.97
  2.00    2.00    2.00    1.00    5.00    2.00
  3.70    0.38    1.29    2.30    1.33    0.49
  1.14    0.00    0.00    0.00    0.00    0.00
  0.00    0.00    0.00    0.00    0.00    0.00
  6.78    6.71    6.74   33.91    6.70    0.00
          3.00    3.00   16.60   21.00
 16.00    2.00   17.50   68.00    1.00    0.00    1.00
  1.72    2.55    1.07    5.44    5.52    2.04    1.44    0.10
2.20
  3.00    3.00    1.00    2.00    4.00    4.00    2.00    1.00
2.00
  0.57    0.85    1.07    2.72    1.38    0.51    0.72    0.10
1.10
  0.00    0.00    0.00    0.00    0.00   81.82    0.00    0.00
0.00
  0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00
  6.77    6.17    5.67    6.48   96.30    5.77   24.99    6.14
177.14
  0.82    6.35    1.60    5.57    8.76    0.57    2.41    0.00
0.00
  2.00    3.00    3.00    3.00    8.00    3.00    4.00    0.00
0.00
  0.41    2.12    0.53    1.86    1.10    0.19    0.60    0.00
0.00 145.87    0.00    0.00    0.00    0.27    1.23    0.00    0.00
0.00
  0.00    0.00    0.00    0.00    0.00    1.00    0.00    0.00
0.00
 55.31    5.34    4.91    6.38   78.34   25.49  763.41    0.00
0.00
                                  3.00    3.00    6.35   11.00
  6.35    1.60    5.57    8.76    0.57    2.41
  3.00    3.00    3.00    8.00    3.00    4.00
  2.12    0.53    1.86    1.10    0.19    0.60
  0.00    0.00    0.00    0.27    1.23    0.00
  0.00    0.00    0.00    0.00    1.00    0.00
  5.34    4.91    6.38   78.34   25.49  763.41
```

1.13	3.95	1.47	0.41	0.53	0.77		
4.00	3.00	2.00	2.00	2.00	1.00		
0.28	1.32	0.74	0.21	0.27	0.77		
0.00	0.00	0.00	0.00	0.13	0.00		
0.00	0.00	0.00	0.00	0.00	0.00		
9.94	5.30	30.89	6.23	37.46	98.37		
0.77	2.23	1.54	0.79	0.94	0.44		
2.00	4.00	1.00	5.00	1.00	2.00		
0.39	0.56	1.54	0.16	0.94	0.22		
0.00	0.00	0.00	0.00	0.00	0.00		
0.00	0.00	0.00	0.00	0.00	0.00		
23.38	11.07	84.29	27.32	263.33	0.00		
	2.00	3.00	3.95	20.00			
16.00	3.00	17.50	68.00	2.00	1.00	1.00	
1.26	1.03	0.23	0.71	1.01	0.66	0.30	1.73
4.51							
3.00	1.00	2.00	1.00	3.00	2.00	1.00	1.00
2.00							
0.42	1.03	0.12	0.71	0.34	0.33	0.30	1.73
2.26							
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
111.30							
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00							
12.62	13.65	53.25	35.73	59.86	56.61	53.35	155.32
5.40							
3.01	0.27	0.14	1.39	0.37	0.30	0.40	8.16
0.74							
2.00	1.00	1.00	2.00	2.00	1.00	1.00	6.00
2.00							
1.51	0.27	0.14	0.70	0.19	0.30	0.40	1.36
0.37							
0.13	0.00	0.13	0.00	0.00	0.00	0.00	0.00
0.00							
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00							
5.23	5.67	12.78	7.04	22.36	9.31	30.59	10.21
699.03							
				3.00	3.00	4.51	9.00
1.39	0.37	0.30	0.40	8.16	0.74		
2.00	2.00	1.00	1.00	6.00	2.00		
0.70	0.19	0.30	0.40	1.36	0.37		
0.00	0.00	0.00	0.00	0.00	0.00		
0.00	0.00	0.00	0.00	0.00	0.00		
7.04	22.36	9.31	30.59	10.21	699.03		
3.38	0.84	1.60	1.06	0.44	0.37		
4.00	1.00	1.00	2.00	1.00	1.00		
0.85	0.84	1.60	0.53	0.44	0.37		
0.00	0.00	0.00	207.18	0.00	0.03		
0.00	0.00	0.00	0.00	0.00	0.00		
8.28	13.71	232.73	46.48	79.18	72.90		
0.40	0.44	0.37	0.70	2.83	0.94		
1.00	1.00	1.00	1.00	1.00	2.00		

```
  0.40    0.44    0.37    0.70    2.83    0.47
  0.00    0.23    0.00    0.00    0.00    0.00
  0.00    0.00    0.00    0.00    0.00    0.00
 70.20  102.36   91.59   12.69    4.97    0.00
         3.00    2.00    3.38   19.00
 16.00    4.00   17.50   68.00    3.00    1.00    1.00
  1.87    0.53   10.98    1.26    0.63    0.40    0.17    0.73
0.30
  6.00    2.00    4.00    3.00    2.00    1.00    1.00    2.00
1.00
  0.31    0.27    2.75    0.42    0.32    0.40    0.17    0.37
0.30
  0.00    0.00    0.00    0.00    1.73    0.00    0.26    3.36
0.00
  2.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00
  6.27   16.25    5.13    6.78   10.15   11.47   10.74    7.48
6.91
  1.87    0.68    0.50    0.34    0.90    5.21    0.47    0.77
11.57
  2.00    2.00    2.00    1.00    1.00    2.00    1.00    2.00
5.00
  0.94    0.34    0.25    0.34    0.90    2.61    0.47    0.39
2.31
  1.34    1.80    5.68    0.00    0.00    0.00    0.00    0.00
0.00
  0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00
 11.78   15.15   17.91    9.27    5.41    5.90    8.97    5.64
569.57
                                 3.00    3.00   10.98    3.00
  0.34    0.90    5.21    0.47    0.77   11.57
  1.00    1.00    2.00    1.00    2.00    5.00
  0.34    0.90    2.61    0.47    0.39    2.31
  0.00    0.00    0.00    0.00    0.00    0.00
  0.00    0.00    0.00    0.00    0.00    0.00
  9.27    5.41    5.90    8.97    5.64  569.57
  0.97    1.23    1.09    1.56    2.74    1.52
  2.00    1.00    2.00    1.00    3.00    2.00
  0.49    1.23    0.55    1.56    0.91    0.76
  0.50   43.61    0.00    0.00    0.00    0.00
  0.00    0.00    0.00    0.00    1.00    0.00
 49.25    5.61    6.24    5.98    9.50    6.10
  1.44    1.61    1.17    0.50    0.33    0.29
  1.00    2.00    2.00    1.00    1.00    1.00
  1.44    0.81    0.59    0.50    0.33    0.29
  0.00    0.00    0.57    0.00    0.00    0.37
  0.00    0.00    0.00    0.00    0.00    0.00
  5.86    5.97    6.40    5.64   11.75    0.00
          4.00    3.00    2.74   23.00
 17.00    1.00   19.75   51.00    1.00    0.00    1.00    3.00
1.00
```

```
 25.39    2.47    2.63    2.87    4.85   12.70    3.30    0.23
5.17
  3.00    1.00    1.00    2.00    1.00    5.00    1.00    1.00
1.00
  8.46    2.47    2.63    1.44    4.85    2.54    3.30    0.23
5.17
  2.40    0.00    0.00    0.00    0.00    0.00   16.18    0.27
33.07
  1.00    0.00    0.00    1.00    0.00    0.00    0.00    0.00
0.00
 19.31   14.25   26.47    7.63   11.60   23.66    6.31   50.59
7.97
  2.10    0.66    2.12    0.50    0.80    0.80    2.84    0.00
0.00
  1.00    1.00    1.00    1.00    1.00    1.00    2.00    0.00
0.00
  2.10    0.66    2.12    0.50    0.80    0.80    1.42    0.00
0.00
  0.00   25.60   51.52    0.00   36.70    0.00   18.45    0.00
0.00
  0.00    0.00    0.00    0.00    0.00    0.00    1.00    0.00
0.00
 40.85   74.18    7.85   43.48   15.78   26.93  652.89    0.00
0.00
                                 3.00    3.00   25.39    1.00
  0.66    2.12    0.50    0.80    0.80    2.84
  1.00    1.00    1.00    1.00    1.00    2.00
  0.66    2.12    0.50    0.80    0.80    1.42
 25.60   51.52    0.00   36.70    0.00   18.45
  0.00    0.00    0.00    0.00    0.00    1.00
 74.18    7.85   43.48   15.78   26.93  652.89
  0.87   15.83    2.18    2.11    9.10   11.91
  1.00    5.00    3.00    1.00    2.00    4.00
  0.87    3.17    0.73    2.11    4.55    2.98
  0.00    0.00   62.36   51.62    0.00    0.00
  0.00    0.00    2.00    0.00    0.00    1.00
 34.06   68.83   62.56    7.98    9.38   47.78
  7.51    0.44   19.81    3.27    1.01    1.19
  1.00    1.00    3.00    1.00    2.00    1.00
  7.51    0.44    6.60    3.27    0.51    1.19
 37.77    0.00   49.63    1.87    0.00   30.97
  0.00    0.00    0.00    0.00    0.00    0.00
  6.57   73.17   20.09    8.04   38.27    0.00
         3.00    4.00   19.81   27.00
 17.00    2.00   19.75   51.00    2.00    1.00    1.00
  2.90    0.46    1.27   21.88   12.64    3.23    3.34    4.17
4.35
  1.00    1.00    1.00    5.00    3.00    2.00    1.00    3.00
2.00
  2.90    0.46    1.27    4.38    4.21    1.62    3.34    1.39
2.18
```

```
  0.13    0.30    0.77    0.00   32.36    0.00    0.00   21.23
0.00
  0.00    0.00    0.00    0.00    1.00    0.00    0.00    0.00
1.00
  7.08   42.38   17.31   41.74   14.22    7.01   37.44    6.63
11.21
  0.47    0.26    0.84    1.64   27.00    9.21    0.43    5.94
8.10
  1.00    1.00    2.00    1.00    3.00    1.00    1.00    2.00
2.00
  0.47    0.26    0.42    1.64    9.00    9.21    0.43    2.97
4.05
  1.44    5.62   10.38    1.03    1.20    0.00   19.16    0.00
0.00
  0.00    0.00    0.00    0.00    1.00    0.00    0.00    1.00
0.00
 47.95   36.70    6.73    6.97    8.93   43.79   12.94   28.80
722.23
                                 4.00    4.00   21.88    4.00
  1.64   27.00    9.21    0.43    5.94    8.10
  1.00    3.00    1.00    1.00    2.00    2.00
  1.64    9.00    9.21    0.43    2.97    4.05
  1.03    1.20    0.00   19.16    0.00    0.00
  0.00    1.00    0.00    0.00    1.00    0.00
  6.97    8.93   43.79   12.94   28.80  722.23
  5.31    2.80    2.73    8.11    1.81    2.32
  1.00    1.00    1.00    2.00    2.00    1.00
  5.31    2.80    2.73    4.06    0.91    2.32
  0.43    0.00    0.00    0.00   21.55    5.01
  0.00    0.00    0.00    1.00    1.00    0.00
  7.11    8.97    8.28   42.38   12.01    7.88
  1.13    4.49    1.86    1.93    1.01    4.28
  2.00    2.00    1.00    1.00    1.00    1.00
  0.57    2.25    1.86    1.93    1.01    4.28
  0.00    0.07   11.35   15.35    0.00    0.00
  1.00    1.00    0.00    0.00    0.00    0.00
  3.10   27.58   53.19   49.85    5.23    0.00
         4.00    4.00    8.11   22.00
 17.00    3.00   19.75   51.00    3.00    0.00    1.00
  1.90    7.85    1.31    1.00    0.81    2.10    4.01    6.48
4.36
  1.00    2.00    1.00    1.00    2.00    2.00    3.00    1.00
1.00
  1.90    3.93    1.31    1.00    0.41    1.05    1.34    6.48
4.36
  0.50    0.00    2.86    0.00    0.00    0.00    0.00    0.00
0.00
  0.00    0.00    0.00    0.00    0.00    1.00    1.00    0.00
0.00
  9.27   12.94   11.98    9.64   19.22   10.74    8.84   46.18
9.08
```

```
  4.94    3.27    1.70    0.31    4.40    1.61    1.81    0.00
0.00
  1.00    1.00    1.00    1.00    1.00    1.00    1.00    0.00
0.00
  4.94    3.27    1.70    0.31    4.40    1.61    1.81    0.00
0.00
  0.00    1.37    0.00    0.00    0.00    0.00   14.98    0.00
0.00
  0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00
 11.88   25.73   13.77    6.34   21.69   23.98  678.79    0.00
0.00
                                 3.00    3.00    7.85    2.00
  3.27    1.70    0.31    4.40    1.61    1.81
  1.00    1.00    1.00    1.00    1.00    1.00
  3.27    1.70    0.31    4.40    1.61    1.81
  1.37    0.00    0.00    0.00    0.00   14.98
  0.00    0.00    0.00    0.00    0.00    0.00
 25.73   13.77    6.34   21.69   23.98  678.79
  6.71    1.77    1.37   11.34    5.09    4.35
  1.00    1.00    1.00    3.00    2.00    2.00
  6.71    1.77    1.37    3.78    2.55    2.18
  0.00   12.95   21.69    0.00    0.00   11.79
  0.00    0.00    0.00    1.00    1.00    1.00
 46.58   31.36    7.68   40.58   33.07   12.85
  4.87    0.93    1.27    0.30    1.71    1.71
  2.00    1.00    2.00    1.00    2.00    2.00
  2.44    0.93    0.64    0.30    0.86    0.86
  1.86    0.00   92.00    0.00    0.00    0.00
  1.00    0.00    1.00    0.00    1.00    1.00
  8.27  157.20   10.30   23.90   17.10   17.10
          4.00    4.00   11.34   22.00
 17.00    4.00   19.75   51.00    4.00    1.00    1.00
  5.93    1.97    3.64   10.24    0.43    3.17    2.53    4.28
8.07
  4.00    2.00    1.00    1.00    1.00    2.00    1.00    4.00
2.00
  1.48    0.99    3.64   10.24    0.43    1.59    2.53    1.07
4.04
  9.88    0.00    3.00    0.00    1.03    0.33    0.47    0.00
0.00
  1.00    0.00    0.00    0.00    0.00    1.00    0.00    2.00
0.00
  7.25   13.71    7.21   18.35    8.78    9.32   27.65   12.74
29.74
  3.46    8.61    4.31   11.74    0.80    0.73    1.17    1.40
1.10
  1.00    2.00    2.00    2.00    1.00    1.00    1.00    1.00
1.00
  3.46    4.31    2.16    5.87    0.80    0.73    1.17    1.40
1.40
```

0.00	0.00	49.18	0.00	23.64	3.81	0.00	1.18
1.18							
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00							
7.18	75.91	18.48	43.74	30.62	6.71	14.45	10.58
755.97							
				4.00	4.00	10.24	4.00
11.74	0.80	0.73	1.17	1.40	1.10		
2.00	1.00	1.00	1.00	1.00	1.00		
5.87	0.80	0.73	1.17	1.40	1.10		
0.00	23.64	3.81	0.00	1.18	1.66		
0.00	0.00	0.00	0.00	0.00	0.00		
43.74	30.62	6.71	14.45	10.58	755.97		
1.30	2.37	1.30	2.37	0.59	6.95		
1.00	1.00	1.00	1.00	1.00	1.00		
1.30	2.37	1.30	2.37	0.59	6.95		
0.51	0.13	0.00	4.47	0.00	0.00		
0.00	0.00	0.00	0.00	0.00	0.00		
7.11	15.75	20.15	15.51	11.46	16.41		
3.64	0.00	0.00	1.17	3.21	1.28		
3.00	0.00	0.00	2.00	2.00	2.00		
1.21	0.00	0.00	0.59	1.61	0.64		
0.47	0.00	0.00	0.00	0.00	0.00		
2.00	0.00	0.00	1.00	1.00	1.00		
68.67	0.00	0.00	11.78	11.07	0.00		
	4.00	3.00	6.95	24.00			
18.00	1.00	14.50	26.00	2.00	0.00	1.00	3.00
2.00							
8.43	33.09	13.62	30.19	17.38	23.04	36.31	7.70
12.27							
4.00	3.00	3.00	1.00	1.00	4.00	4.00	2.00
2.00							
2.11	11.03	4.54	30.19	17.38	5.76	9.08	3.85
6.14							
1.21	0.73	0.07	0.00	0.24	0.00	0.00	0.00
0.00							
0.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
0.00							
8.31	8.01	4.07	4.81	4.07	3.83	6.21	7.11
5.30							
2.36	5.72	13.40	5.83	4.22	9.64	9.21	0.00
0.00							
1.00	7.00	3.00	2.00	3.00	2.00	5.00	0.00
0.00							
2.36	0.82	4.47	2.92	1.41	4.82	1.84	0.00
0.00							
0.00	0.00	0.00	0.00	7.71	1.97	0.73	0.00
0.00							
0.00	2.00	0.00	0.00	1.00	1.00	3.00	0.00
0.00							
8.18	7.38	4.54	13.18	13.31	39.43	653.10	0.00
0.00							
				3.00	3.00	36.31	7.00

5.72	13.40	5.83	4.22	9.64	9.21		
7.00	3.00	2.00	3.00	2.00	5.00		
0.82	4.47	2.92	1.41	4.82	1.84		
0.00	0.00	0.00	7.71	1.97	0.73		
2.00	0.00	0.00	1.00	1.00	3.00		
7.38	4.54	13.18	13.31	39.43	653.10		
24.57	31.21	7.97	3.51	1.07	13.36		
7.00	6.00	2.00	1.00	1.00	4.00		
3.51	5.20	3.99	3.51	1.07	3.34		
0.00	0.00	0.00	0.00	7.34	2.07		
1.00	0.00	0.00	0.00	0.00	1.00		
8.40	6.46	5.91	13.04	8.51	9.58		
20.01	9.88	12.54	11.21	11.21	11.21		
6.00	4.00	9.00	6.00	6.00	6.00		
3.34	2.47	1.39	1.87	1.87	1.87		
0.00	0.00	0.54	0.27	0.27	0.27		
0.00	0.00	0.00	0.00	0.00	0.00		
19.64	9.74	14.69	14.69	14.69	14.69		
	3.00	3.00	31.21	20.00			
18.00	2.00	14.50	26.00	3.00	0.00	1.00	
97.87	17.52	10.98	6.49	6.98	37.96	6.05	11.57
0.93							
5.00	7.00	6.00	3.00	2.00	20.00	4.00	6.00
3.00							
19.57	2.50	1.83	2.16	3.49	1.90	1.51	1.93
0.31							
0.00	0.00	0.57	0.00	0.00	0.60	0.00	0.47
0.00							
1.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
0.00							
5.11	5.32	6.64	5.40	8.60	6.51	7.18	5.51
7.48							
1.40	0.67	0.97	5.25	18.21	9.66	32.57	0.00
0.00							
1.00	2.00	1.00	2.00	13.00	9.00	5.00	0.00
0.00							
1.40	0.34	0.97	2.63	1.40	1.07	6.51	0.00
0.00							
0.00	0.00	0.00	0.00	0.00	0.33	0.00	0.00
0.00							
0.00	0.00	0.00	0.00	1.00	0.00	1.00	0.00
0.00							
8.64	8.24	6.23	6.81	6.95	15.59	683.32	0.00
0.00							
				3.00	3.00	97.87	1.00
0.67	0.97	5.25	18.21	9.66	32.57		
2.00	1.00	2.00	13.00	9.00	5.00		
0.34	0.97	2.63	1.40	1.07	6.51		
0.00	0.00	0.00	0.00	0.33	0.00		
0.00	0.00	0.00	1.00	0.00	1.00		
8.24	6.23	6.81	6.95	15.59	683.32		
10.68	27.50	30.74	23.23	18.92	5.10		
1.00	9.00	3.00	6.00	6.00	4.00		

10.68	3.06	10.25	3.87	3.15	1.28		
0.47	0.50	0.00	0.00	0.00	0.00		
0.00	0.00	0.00	1.00	2.00	0.00		
15.50	9.07	11.04	12.74	6.02	14.29		
11.15	10.54	9.52	4.47	3.30	3.37		
1.00	5.00	1.00	6.00	3.00	1.00		
11.15	2.11	9.52	0.75	1.10	3.37		
0.00	0.00	0.00	0.00	0.00	0.00		
0.00	0.00	0.00	1.00	1.00	0.00		
9.03	5.43	12.27	10.27	2.97	0.00		
	3.00	3.00	30.74	21.00			
18.00	3.00	14.50	26.00	4.00	1.00	1.00	
10.62	9.28	14.78	1.33	9.98	21.82	7.07	22.96
21.74							
2.00	2.00	2.00	1.00	1.00	2.00	1.00	1.00
4.00							
5.31	4.64	7.39	1.33	9.98	10.91	7.07	22.96
5.44							
0.80	0.00	0.00	0.00	0.00	0.00	0.40	12.18
0.00							
1.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
0.00							
4.50	6.30	9.28	12.35	8.11	10.95	19.92	12.28
8.67							
3.54	2.10	6.18	11.15	3.02	42.73	1.30	2.30
30.12							
1.00	1.00	2.00	3.00	2.00	11.00	1.00	1.00
4.00							
3.54	2.10	3.09	3.72	1.51	3.88	1.30	2.30
7.53							
0.00	0.00	0.00	1.40	0.13	0.00	0.00	0.00
0.54							
0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00
2.00							
7.71	7.97	10.78	8.70	16.27	9.45	11.31	11.32
649.31							
				3.00	3.00	22.96	8.00
11.15	3.02	42.73	1.30	2.30	30.12		
3.00	2.00	11.00	1.00	1.00	4.00		
3.72	1.51	3.88	1.30	2.30	7.53		
1.40	0.13	0.00	0.00	0.00	0.54		
1.00	1.00	0.00	0.00	0.00	2.00		
8.70	16.27	9.45	11.31	11.32	649.31		
52.18	1.53	6.52	11.32	1.17	2.95		
6.00	1.00	5.00	1.00	1.00	2.00		
8.70	1.53	1.30	11.32	1.17	1.48		
2.73	0.00	0.00	0.00	0.00	0.00		
0.00	0.00	1.00	0.00	0.00	0.00		
9.18	10.41	14.15	9.74	9.17	12.91		
6.60	3.88	18.58	20.79	10.76	7.23		
3.00	2.00	2.00	4.00	4.00	2.00		
2.20	1.94	9.29	5.20	2.69	3.62		
2.97	0.00	1.57	0.00	0.03	0.00		

```
  0.00    0.00    0.00    1.00    0.00    1.00
  9.65   10.81   15.08   10.14    8.81    0.00
          3.00    3.00   52.18   19.00
 18.00    4.00   14.50   26.00    1.00    1.00    1.00
 82.91  118.31   68.67   10.51   23.84   13.75   17.01    5.01
5.33
  5.00    4.00    2.00    1.00    4.00    1.00    6.00    1.00
1.00
 16.58   29.58   34.34   10.51    5.96   13.75    2.84    5.01
5.33
  0.00    0.10    0.00    0.00    0.00    0.17    0.00    0.00
0.04
  0.00    1.00    0.00    0.00    1.00    0.00    1.00    0.00
0.00
  6.23  141.99    6.44    6.84    3.73    5.97    6.24    6.52
5.33
 11.14    3.57    3.88    1.44    3.23    1.60    6.90    2.87
8.58
  2.00    2.00    1.00    1.00    2.00    1.00    1.00    1.00
1.00
  5.57    1.79    3.88    1.44    1.62    1.60    6.90    2.87
8.58
  0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00
  0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00
  5.54    5.44    6.33    7.14    5.71    5.40    7.78    5.34
656.20
                                  3.00    3.00  118.31    2.00
  1.44    3.23    1.60    6.90    2.87    8.58
  1.00    2.00    1.00    1.00    1.00    1.00
  1.44    1.62    1.60    6.90    2.87    8.58
  0.00    0.00    0.00    0.00    0.00    0.00
  0.00    0.00    0.00    0.00    0.00    0.00
  7.14    5.71    5.40    7.78    5.34  656.20
  6.44  126.05   12.31    6.41   12.60    3.43
  1.00    5.00    1.00    2.00    2.00    1.00
  6.44   25.21   12.31    3.21    6.30    3.43
  0.00    0.00    0.37    0.00    0.94    0.00
  0.00    1.00    0.00    1.00    0.00    0.00
  9.28    6.90    5.71    8.95    6.01    8.04
  4.25    2.79    3.00    2.03    1.73    4.78
  1.00    1.00    1.00    1.00    1.00    1.00
  4.25    2.79    3.00    2.03    1.73    4.78
  0.00    0.00    0.00    0.00    0.00    0.00
  0.00    0.00    0.00    0.00    0.00    0.00
  5.66    5.93    5.64    6.45    5.73    0.00
          3.00    3.00  126.05   20.00
 19.00    1.00   22.75   60.00    3.00    1.00    2.00    1.00
3.00
  1.00    0.98    1.77   13.31    2.67    0.97    0.10    3.03
2.63
```

```
  1.00    1.00    1.00    8.00    1.00    1.00    1.00    4.00
3.00
  1.00    0.98    1.77    1.66    2.67    0.97    0.10    0.76
0.88
  0.23    0.00    0.83    7.04    3.63    0.90    0.00    1.84
0.00
  0.00    0.00    0.00    2.00    0.00    0.00    0.00    2.00
0.00
 21.65    9.24   15.18   25.13   30.90   16.48   10.25   37.95
31.63
  4.53    1.60    6.52    1.80    0.56    6.36   11.25    5.45
0.57
  2.00    3.00    5.00    3.00    1.00    6.00    3.00    2.00
1.00
  2.27    0.53    1.30    0.60    0.56    1.06    3.75    2.73
0.57
  0.00    8.08    0.00    8.88    1.70    0.00    0.00    0.00
1.84
  0.00    2.00    1.00    2.00    0.00    1.00    1.00    1.00
0.00
 15.35   28.69   31.00   10.81   18.63    3.46    7.03    9.34
697.24
                                 4.00    3.00   13.31    4.00
  1.80    0.56    6.36   11.25    5.45    0.57
  3.00    1.00    6.00    3.00    2.00    1.00
  0.60    0.56    1.06    3.75    2.73    0.57
  8.88    1.70    0.00    0.00    0.00    1.84
  2.00    0.00    1.00    1.00    1.00    0.00
 10.81   18.63    3.46    7.03    9.34  697.24
  1.97    2.27    2.66    1.04    3.27    0.54
  2.00    3.00    4.00    1.00    2.00    1.00
  0.99    0.76    0.67    1.04    1.64    0.54
  2.63    1.00    2.67   26.69    0.00   25.95
  0.00    2.00    3.00    0.00    0.00    0.00
  9.24   19.92   35.60   10.84   49.08   11.41
  7.67    0.64    2.84    1.23    2.48    3.88
  5.00    1.00    1.00    3.00    3.00    3.00
  1.53    0.64    2.84    0.41    0.83    1.29
  0.54    7.84   14.88    0.24    0.00    0.00
  1.00    0.00    0.00    0.00    0.00    1.00
 25.96   76.27   34.30   29.86    6.60    0.00
         4.00    3.00    7.67   25.00
 19.00    2.00   22.75   60.00    4.00    0.00    2.00
  2.17    1.31    1.73    0.90    0.94    2.01    4.68    1.44
1.14
  1.00    2.00    1.00    2.00    1.00    1.00    1.00    2.00
2.00
  2.17    0.66    1.73    0.45    0.94    2.01    4.68    0.72
0.57
  0.00    1.53    0.00    3.08   12.17    0.00    2.30    0.00
6.78
```

```
  0.00    0.00    0.00    1.00    0.00    0.00    0.00    1.00
1.00
  8.17    8.18   15.49   18.98    6.47   13.47    6.34   30.30
13.72
  1.00    1.34    0.63    1.27    0.70    0.57    1.45    0.00
0.00
  2.00    2.00    1.00    2.00    1.00    1.00    3.00    0.00
0.00
  0.50    0.67    0.63    0.64    0.70    0.57    0.48    0.00
0.00
  3.04   11.98    3.61    0.20    0.00    0.23    0.00    0.00
0.00
  0.00    1.00    0.00    1.00    0.00    0.00    2.00    0.00
0.00
 32.00    8.58   12.61    4.24   41.61   11.41  701.33    0.00
0.00
                                 4.00    3.00    4.68    7.00
  1.34    0.63    1.27    0.70    0.57    1.45
  2.00    1.00    2.00    1.00    1.00    3.00
  0.67    0.63    0.64    0.70    0.57    0.48
 11.98    3.61    0.20    0.00    0.23    0.00
  1.00    0.00    1.00    0.00    0.00    2.00
  8.58   12.61    4.24   41.61   11.41  701.33
  6.28    0.46    0.83    1.90    3.41    0.66
  3.00    1.00    1.00    1.00    2.00    1.00
  2.09    0.46    0.83    1.90    1.71    0.66
  0.00    0.00    0.37    0.00    0.00    0.00
  0.00    0.00    0.00    0.00    0.00    0.00
  8.28   12.85   22.16    7.27    7.08   32.10
  1.74    0.97    3.10    2.70    1.07    5.94
  2.00    2.00    4.00    4.00    1.00    1.00
  0.87    0.49    0.78    0.68    1.07    5.94
 17.36   19.42    0.00   11.54    0.67    0.67
  1.00    1.00    1.00    1.00    0.00    0.00
 51.45    3.86   17.85   22.99    9.64    0.00
          3.00    3.00    6.28   19.00
 19.00    3.00   22.75   60.00    1.00    1.00    2.00
  4.10    0.77    2.57   13.62   14.68    0.97    1.93   43.79
6.57
  2.00    1.00    2.00    2.00    2.00    1.00    1.00   13.00
3.00
  2.05    0.77    1.29    6.81    7.34    0.97    1.93    3.37
2.19
  0.00    0.03    0.00    0.00    0.00    0.00   14.82    0.26
0.00
  0.00    0.00    0.00    1.00    0.00    0.00    0.00    3.00
1.00
  8.47   11.62    9.37   10.71    7.04   22.59   13.98    6.27
50.65
 20.82   46.24   16.42   39.95   17.41   27.43   12.81    8.88
2.41
```

```
  2.00    4.00    2.00    2.00    2.00    4.00    2.00    2.00
1.00
 10.41   11.56    8.21   19.98    8.71    6.86    6.41    4.44
2.41
 13.48    0.00    0.00    0.00    0.00    0.00    0.00    3.53
0.00
  0.00    1.00    0.00    1.00    0.00    0.00    0.00    0.00
0.00
 21.36   12.10    6.95   10.53   12.41    8.01   13.61   16.92
647.76
                                 4.00    3.00   46.24   11.00
 39.95   17.41   27.43   12.81    8.88    2.41
  2.00    2.00    4.00    2.00    2.00    1.00
 19.98    8.71    6.86    6.41    4.44    2.41
  0.00    0.00    0.00    0.00    3.53    0.00
  1.00    0.00    0.00    0.00    0.00    0.00
 10.53   12.41    8.01   13.61   16.92  647.76
  4.80    0.63    6.03    1.13    1.41   10.16
  2.00    2.00    5.00    1.00    1.00    3.00
  2.40    0.32    1.21    1.13    1.41    3.39
  0.00    0.03    0.30    0.00    0.00    0.00
  0.00    0.00    4.00    0.00    0.00    0.00
  9.14   50.28    9.99   71.80    7.43   16.25
  8.83    2.00    2.30    2.69    4.31   30.80
  1.00    3.00    1.00    3.00    1.00    4.00
  8.83    0.67    2.30    0.90    4.31    7.70
  0.00    0.00   58.33    0.03   58.12    0.96
  0.00    1.00    0.00    0.00    0.00    1.00
 11.72   93.47  126.19   88.38  183.95    0.00
         4.00    3.00   30.80   30.00
 19.00    4.00   22.75   60.00    2.00    0.00    2.00
  5.90    1.50   16.21    2.57   13.59   15.39   25.76   40.75
4.38
  1.00    1.00    6.00    1.00    2.00    3.00    2.00    4.00
2.00
  5.90    1.50    2.70    2.57    6.80    5.13   12.88   10.19
2.19
  0.00    0.00    0.00    0.16    0.23    0.13    0.17    0.00
0.00
  0.00    0.00    1.00    0.00    0.00    0.00    1.00    1.00
1.00
  6.01   13.08    8.80    8.89    9.70    6.84   10.97    7.31
3.29
 12.77   10.81    2.73    2.68   37.55   32.14    0.67    0.00
0.00
  5.00    2.00    2.00    1.00    1.00    2.00    1.00    0.00
0.00
  2.55    5.41    1.37    2.68   37.55   16.07    0.67    0.00
0.00
  0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00
```

```
  2.00    1.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00
  9.78    9.71    9.24    6.16    6.24   15.91  609.58    0.00
0.00
                                 4.00    4.00   40.75    8.00
 10.81    2.73    2.68   37.55   32.14    0.67
  2.00    2.00    1.00    1.00    2.00    1.00
  5.41    1.37    2.68   37.55   16.07    0.67
  0.00    0.00    0.00    0.00    0.00    0.00
  1.00    0.00    0.00    0.00    0.00    0.00
  9.71    9.24    6.16    6.24   15.91  609.58
  2.60    2.27    6.30    2.57    7.69   41.19
  1.00    2.00    4.00    1.00    4.00    6.00
  2.60    1.14    1.58    2.57    1.92    6.87
  0.00    9.37   11.28    0.00   13.07    0.00
  0.00    0.00    2.00    0.00    0.00    1.00
 23.38   20.49   34.84   27.49   17.71   13.79
 11.88   10.34    1.54   21.96   11.09    2.40
  3.00    1.00    2.00    2.00    2.00    1.00
  3.96   10.34    0.77   10.98    5.55    2.40
  0.00    0.23    0.00    0.00   15.77    0.00
  1.00    0.00    0.00    0.00    0.00    0.00
 14.54   28.47   12.04   25.62   11.51    0.00
         4.00    3.00   41.19   24.00
 20.00    1.00   10.25   41.00    4.00    1.00    1.00    1.00
4.00
 10.92    1.40    3.80    2.10    1.69    4.79    0.67    1.77
2.20
  1.00    1.00    1.00    1.00    2.00    3.00    1.00    1.00
1.00
 10.92    1.40    3.80    2.10    0.85    1.60    0.67    1.77
2.20
  0.97    0.00    0.93    0.00    0.57    0.00    9.47    0.63
0.07
  0.00    0.00    0.00    0.00    0.00    1.00    0.00    0.00
0.00
  9.27    9.74   13.29    6.44    6.71   32.73   19.79   12.98
20.45
  1.53    2.00    0.37    2.57    1.76    1.99    2.04    2.03
2.97
  1.00    1.00    1.00    1.00    1.00    3.00    1.00    1.00
1.00
  1.53    2.00    0.37    2.57    1.76    0.66    2.04    2.03
2.97
  2.63    0.00    0.36    0.00    0.38    0.00    0.80    0.00
0.77
  0.00    0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00
  9.89   12.60   10.68   21.13   15.09   34.86    9.55    6.71
644.35
                                 4.00    4.00   10.92    1.00
  2.57    1.76    1.99    2.04    2.03    2.97
  1.00    1.00    3.00    1.00    1.00    1.00
```

```
  2.57    1.76    0.66    2.04    2.03    2.97
  0.00    0.38    0.00    0.80    0.00    0.77
  0.00    0.00    0.00    0.00    0.00    0.00
 21.13   15.09   34.86    9.55    6.71  644.35
  6.58    1.61    1.74    3.30    1.96    8.67
  1.00    1.00    1.00    1.00    1.00    3.00
  6.58    1.61    1.74    3.30    1.96    2.89
  0.13    0.00    0.30    0.00    0.00   10.47
  0.00    0.00    0.00    0.00    0.00    0.00
 39.27    6.63   30.50   14.55   17.02    5.54
  1.93    0.37    1.27    1.03    0.67    0.37
  1.00    1.00    1.00    1.00    1.00    1.00
  1.93    0.37    1.27    1.03    0.67    0.37
  0.00   13.32    0.00    0.10    2.30    9.84
  0.00    0.00    0.00    0.00    0.00    0.00
 20.36   10.20   21.16    7.97   27.33    0.00
         4.00    4.00    8.67   24.00
 20.00    2.00   10.25   41.00    1.00    0.00    1.00
  2.04    1.37    1.07    2.26    1.06    1.81    0.63    2.40
8.28
  1.00    2.00    1.00    3.00    1.00    2.00    1.00    1.00
2.00
  2.04    0.69    1.07    0.75    1.06    0.91    0.63    2.40
4.14
  0.00    0.00   10.28    0.33    1.34    0.00    1.43    0.00
1.57
  0.00    1.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00
  7.01   13.81    9.24    6.85    5.58   14.71   15.35   11.48
8.98
  1.06    1.46    0.47    1.17    2.76    0.33    6.27    0.00
0.00
  1.00    1.00    1.00    1.00    2.00    1.00    3.00    0.00
0.00
  1.06    1.46    0.47    1.17    1.38    0.33    2.09    0.00
0.00
  0.00    3.68    0.76   24.52   20.23    0.00    0.00    0.00
0.00
  0.00    0.00    0.00    0.00    0.00    0.00    1.00    0.00
0.00
 16.39   16.55   31.80   30.90    3.51   17.45  851.74    0.00
0.00
                                 4.00    4.00    8.28    9.00

  1.46    0.47    1.17    2.76    0.33    6.27
  1.00    1.00    1.00    2.00    1.00    3.00
  1.46    0.47    1.17    1.38    0.33    2.09
  3.68    0.76   24.52   20.23    0.00    0.00
  0.00    0.00    0.00    0.00    0.00    1.00
 16.55   31.80   30.90    3.51   17.45  851.74
  1.43    0.90    1.33    1.53    1.96    1.00
  1.00    1.00    1.00    1.00    1.00    1.00
  1.43    0.90    1.33    1.53    1.96    1.00
  0.00    0.00    0.00    0.00    0.00    0.00
```

0.00	0.00	0.00	0.00	0.00	0.00		
7.91	5.64	9.35	7.71	5.98	5.64		
0.97	0.60	0.90	0.54	1.80	1.89		
1.00	1.00	1.00	1.00	2.00	2.00		
0.97	0.60	0.90	0.54	0.90	0.95		
0.00	0.00	0.50	0.16	10.68	0.00		
0.00	0.00	0.00	0.00	0.00	0.00		
8.41	7.00	10.71	19.79	36.71	0.00		
	4.00	4.00	1.96	23.00			
20.00	3.00	10.25	41.00	2.00	1.00	1.00	
3.16	2.56	0.73	6.17	1.94	1.19	2.67	2.38
3.74							
3.00	3.00	2.00	3.00	1.00	2.00	2.00	1.00
3.00							
1.05	0.85	0.37	2.06	1.94	0.60	1.34	2.38
1.25							
0.30	8.84	1.24	7.00	15.71	15.82	14.28	0.00
0.40							
1.00	2.00	1.00	2.00	0.00	0.00	1.00	0.00
1.00							
19.73	12.61	26.32	25.36	24.86	21.13	24.73	9.10
5.27							
2.41	1.63	0.70	0.66	3.84	0.47	1.51	5.40
0.70							
1.00	1.00	1.00	2.00	1.00	1.00	1.00	3.00
1.00							
2.41	1.63	0.70	0.33	3.84	0.47	1.51	1.80
0.70							
0.00	1.57	0.23	3.18	1.73	31.97	0.33	19.92
24.90							
0.00	0.00	0.00	1.00	0.00	0.00	0.00	2.00
0.00							
36.30	31.23	28.94	30.17	37.20	30.49	29.39	48.79
720.60							
				4.00	4.00	6.17	4.00
0.66	3.84	0.47	1.51	5.40	0.70		
2.00	1.00	1.00	1.00	3.00	1.00		
0.33	3.84	0.47	1.51	1.80	0.70		
3.18	1.73	31.97	0.33	19.92	24.90		
1.00	0.00	0.00	0.00	2.00	0.00		
30.17	37.20	30.49	29.39	48.79	720.60		
0.66	0.34	1.87	1.64	0.64	0.43		
1.00	1.00	2.00	5.00	2.00	1.00		
0.66	0.34	0.94	0.33	0.32	0.43		
0.14	0.00	1.10	0.54	0.00	34.60		
0.00	0.00	0.00	4.00	0.00	0.00		
66.47	57.55	16.59	47.99	39.91	87.96		
1.40	1.80	0.44	0.37	2.44	0.66		
2.00	1.00	2.00	1.00	2.00	1.00		
0.70	1.80	0.22	0.37	1.22	0.66		
42.44	69.60	1.46	57.36	56.56	0.00		
1.00	0.00	1.00	0.00	1.00	0.00		
79.77	34.64	102.63	72.87	20.36	0.00		

```
        4.00    4.00    2.44   29.00
 20.00  4.00   10.25   41.00    3.00    0.00    1.00
  0.93  1.17    0.46    1.27    1.54    1.80    7.87    0.23
1.10
  2.00  1.00    1.00    1.00    3.00    1.00    2.00    1.00
1.00
  0.47  1.17    0.46    1.27    0.51    1.80    3.94    0.23
1.10
  0.00  0.00    0.00    0.00   23.21   52.72    0.00    0.00
26.80
  1.00  0.00    0.00    0.00    2.00    0.00    0.00    0.00
0.00
  5.37 10.71   47.02   35.06   93.02   10.14   15.42   41.95
26.06
  2.24  2.50    3.01    2.78    2.27    3.40    2.44    0.00
0.00
  1.00  1.00    1.00    1.00    1.00    1.00    1.00    0.00
0.00
  2.24  2.50    3.01    2.78    2.27    3.40    2.44    0.00
0.00
  0.00 37.94   14.14   22.99    0.00    0.00   36.50    0.00
0.00
  0.00  0.00    0.00    0.00    0.00    0.00    0.00    0.00
0.00
 55.59 37.16   70.50    7.90   24.59   76.51  763.16    0.00
0.00
                                4.00    4.00    7.87    7.00
  2.50  3.01    2.78    2.27    3.40    2.44
  1.00  1.00    1.00    1.00    1.00    1.00
  2.50  3.01    2.78    2.27    3.40    2.44
 37.94 14.14   22.99    0.00    0.00   36.50
  0.00  0.00    0.00    0.00    0.00    0.00
 37.16 70.50    7.90   24.59   76.51  763.16
  0.81  1.03    0.67    1.87    0.49    2.87
  1.00  1.00    1.00    3.00    1.00    2.00
  0.81  1.03    0.67    0.62    0.49    1.44
  0.56  0.00    0.00    0.00    0.00  203.24
  0.00  0.00    0.00    1.00    0.00    1.00
  6.00 21.13    7.70    9.92  219.89   37.34
  0.57  0.83    3.42    0.60    0.37    0.70
  1.00  1.00    3.00    1.00    1.00    1.00
  0.57  0.83    1.14    0.60    0.37    0.70
  0.43  0.10    0.63    0.00   14.62    0.87
  0.00  0.00    0.00    0.00    0.00    0.00
 87.15 25.92   33.40  131.53   46.14    0.00
        4.00    4.00    3.42   27.00
```