NETWORK EXPERIMENT INSTRUCTIONS (Series One)

This is an experiment of network formation. If you follow these instructions and make appropriate decisions, you can earn an appreciable amount of money. At the end of the experiment your earnings will be paid to you privately, and in cash. In this experiment each person holds some private information. This information is valuable to you, and to every other person who can access it. It has a value of 20 cents for every person, including yourself, who holds it. You can access someone else’s information directly by forming a link from them. Each link costs 15 cents. You may form as many links as you like. A piece of information can be passed along multiple times.

Say in a three person network that you connect a link from Person 1. Then if Person 1 is also linked to Person 2 you receive the information from both Person 1 and Person 2, but you only have to pay for the link from Person 1. This is shown in the following diagram. Note that the tip of the arrow points to the person who is paying for the link and so receiving the information.

Information you now hold: You, Person 1, and Person 2

Value = 3 x 20 cents

Costly links you have paid for: From Person 1

Cost = 15c

Net profit for you for this round = 60c – 15c = 45 cents

The information links are only one way. So in the above example, if you have paid for the link from Person 1 then you receive Person 1’s information, but Person 1 does not receive your information. Person 1 would have to pay for a link from you if he wanted your information. Note that it is permitted for any two people to pay for links from each other simultaneously.

Let’s try a simple example. In the following diagram what would be the profits for persons 1, 2 and 3? Write your answers in the space provided. Represent links paid for by circling the person number from whom each link is connected. Circle ‘N’ if a person has not paid for any links. Remember, you also receive value from holding your own information.

<table>
<thead>
<tr>
<th>Person 1</th>
<th>Person 2</th>
<th>Person 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Links Chosen</td>
<td>Cost</td>
<td>Information Received</td>
</tr>
<tr>
<td>Person 1</td>
<td>N 1 2 3</td>
<td>15c</td>
</tr>
<tr>
<td>Person 2</td>
<td>N 1 2 3</td>
<td></td>
</tr>
<tr>
<td>Person 3</td>
<td>N 1 2 3</td>
<td></td>
</tr>
</tbody>
</table>

The experiment will involve multiple rounds. In each round you will select from which people you wish to pay for a link. You will write this on your record sheet in the column marked ‘Links Chosen’. You will also record this on one of the slips of paper that you hold and submit it face down to the experimenter. We will then determine which information each person accumulates, both through their direct links and indirect links. You will also record these results on your Record Sheet. Your earnings will then be calculated accordingly for your position. Note that you will be paid for your performance in each round of
This process is then repeated in each subsequent round. In each round connections start anew, so you will pay for any links you hold in that round, regardless of whether you have held that link previously. In each round you may connect any link, or combination of links, that you desire.

The exact number of rounds to be conducted will be determined randomly. We will conduct at least ten rounds. At the end of the tenth round and after every subsequent round a pair of dice will be rolled. If the sum of the roll exceeds a certain number, specified in the table below, then the experiment will stop. Otherwise we will continue with another round and repeat the process. You will notice that the probability of stopping after a given round increases as we play more rounds.

<table>
<thead>
<tr>
<th>Round</th>
<th>End if Sum ≥</th>
<th>Round</th>
<th>End if Sum ≥</th>
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<tbody>
<tr>
<td>10</td>
<td>12</td>
<td>16</td>
<td>6</td>
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<td>11</td>
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<td>2</td>
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<tr>
<td>15</td>
<td>7</td>
<td></td>
<td></td>
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</tbody>
</table>

After the experiment is completed you will be paid your profits. Are there any questions before we begin? Please do not talk or communicate with anyone else during the experiment. We will insist that everyone remain silent until the end of the last period. If we observe you communicating with anyone, other than the experimenter, we will ask you to leave without completing the experiment. We are now ready to begin round one. Please choose and write down your desired connections for round one on your record sheet and a slip of paper.