

GENERAL INSTRUCTIONS

This is an experiment on the economics of decision-making. Your earnings will depend partly on your decisions, partly on the decisions of others and partly on chance. By following the instructions and making careful decisions you will earn varying amounts of money, which will be paid at the end of the experiment. Details of how you will make decisions and earn money are explained below.

In this experiment, you will participate in 30 **independent** decision problems (rounds). In all rounds, you will be **randomly** matched with another participant. In what follows, we will refer to the person with whom you are matched as your *match*. After each round, you will be **randomly** matched with another participant for the next decision problem, and so on. At no point in the experiment will you know the identity of your matches.

DECISION PROBLEM

In each round you will be asked to choose a number between 20 and 50. Your match will face the same choice problem. If we denote your choice by K and your match's choice by M , then your decisions will result in the following earnings (the explanation of Q will be given later):

$$\text{earnings} = 5 \cdot \min\{K, M, Q\} - 2 \cdot K$$

That is, when determining your profits, we first look for the **smallest** number of K (your decision), M (your match's decision) and Q . Whatever that smallest number is, we will multiply it by 5. From that number, we will deduct 2 times the number you chose.

For example, if you chose $K = 30$, your match chose $M = 25$ and $Q = 27$, then the smallest number is $M = 25$, which means that you will earn $5 \cdot 25 - 2 \cdot 30 = 125 - 60 = 65$ points. On the other hand, your match would earn $5 \cdot 25 - 2 \cdot 25 = 125 - 50 = 75$ points. The software contains a calculator feature to help you calculate your earnings under any hypothetical scenario of your choosing.

WHAT IS Q ?

Q is a number (up-to two decimals) between 20 and 50 randomly determined by the computer. That means any number between 20 and 50 is equally likely to be picked by the computer.

The computer picks Q before each round and the numbers are independent across rounds. That is, the Q chosen by the computer in a round has nothing to do with the Q picked in any other round.

Before you make a decision you will **not** be told what Q is but instead you will receive an estimate of Q , which we will denote by E . Let's be more precise. After the computer randomly determines Q , it also picks a random number (up-to two decimals) between $Q - 5$ and $Q + 5$. This is your estimate E . Any number between $Q - 5$ and $Q + 5$ is equally likely to be picked by the computer. Although E does not tell you what Q exactly is, it gives an estimate of it. For example

if you receive an estimate $E = 37.07$, then you know that Q is **not less than** $37.07 - 5 = 32.07$ and it is **not more than** $37.07 + 5 = 42.07$.

Note that although Q will be the **same** for both you and your match, your **estimates** can be different. That is, for the same Q , the computer also randomly picks another estimate exactly in the same manner for your match. Your estimate and your match's estimate are chosen independently. Therefore, it is very likely that they will be different numbers; however, both estimates will be between $Q - 5$ and $Q + 5$. Note also that while Q will be between 20 and 50, your estimate of Q can be between 15 and 55.

THE COMPUTER SCREEN

In each round, you will see the following computer screen:

Round 1 of 1

| Your Choice | Match's Choice | Hypothetical Q | Hypothetical Profit |
|-------------|----------------|----------------|---------------------|
| 32.00 | 28.00 | 30.00 | 76.00 |

Your profits are calculated as:
 $5 * \text{MIN}[Q, \text{your choice}, \text{match's choice}] - 2 * (\text{your choice})$

The computer has drawn a random number between 20 and 50 to determine Q .
 Your **estimate** for Q is: **39.01**

Your Choice

Q (hypothetical)

Your Choice (hypothetical)

Match's Choice (hypothetical)

On the left side of the screen is where you will see your estimate and make your final decision. In this example, you see that your estimate of Q is 39.01. On the right hand side of the screen, you can enter *hypothetical* values for your decision, your match's decision and the value of Q in order to see what your earnings would be under each hypothetical scenario. You can compute your hypothetical earnings under as many different scenarios as you choose.

YOUR DECISION

After you are given your estimate, E , you are ready to make a decision. Your decision is simply to choose a number between 20 and 50. The payoffs for this decision are as described above. Note

that you and your match make your decisions *at the same time*; that is, you must choose your number without knowing the choice made by your match.

PAYOFFS

Your potential earnings in each round depend on your choice, on your match's choice, and on Q . After both you and your match have made your choices, you will see the following screen. You see your estimate of Q , the true value of Q , and your profit. You also see the decision made by both you and your match. In this example, you see that while your estimate of Q was 39.01, its true value was 43.86.



The screenshot shows a window with a light beige background. It contains a list of five items, each with a label on the left and a numerical value on the right. An 'OK' button is located in the bottom right corner of the window.

| | |
|--|--------|
| Your estimate of Q was: | 39.01 |
| The true value of Q was: | 43.86 |
| Your decision was: | 35.00 |
| Your match's decision was: | 45.20 |
| Based on the decisions of you and your match, your profit was: | 105.00 |

At the end of the 30 rounds, we will add all your earnings in order to determine your total points. This total will be converted to a dollar amount according to the rule:

$$\$1 = 165 \text{ points.}$$

This amount will then be added to the \$5.00 participation fee to give your final payment. Payments will be made in private, in cash, after the completion of the experiment.

RULES

Please do not talk with anyone during the experiment. We ask everyone to remain silent until the end of the last decision problem.

Your participation in the experiment and any information about your earnings will be kept strictly confidential. Your receipt of payment and the consent form are the only places on which your name will appear. This information will be kept confidential in the manner described in the consent form.

If you have any questions please ask them now. If not, we will proceed to the experiment.