

Instructions

This is an experiment in the economics of decision making. The instructions are simple. You will likely earn more money if you read them carefully and understand them fully. Your earnings will be paid to you privately, in cash, at the end of today's session.

In every round of this experiment you will be part of a group of four bidders (you and three other bidders). Each round, a single item will be offered for sale to your group through an auction. If you purchase the item, your earnings will be the difference between the value of the item and the purchase price. The rules of the auction, and how the value for the item is determined, are described below.

The Value for the Item

At the beginning of each round, the computer randomly draws an amount between \$0 and \$10 inclusively, which is your "signal" of the value of the item. Each amount between \$0 and \$10 is equally likely to be drawn. Your signal will be shown on your computer screen before the auction begins, but not the value. Figure 1, below, shows your screen if your signal were, for example, \$8.40.

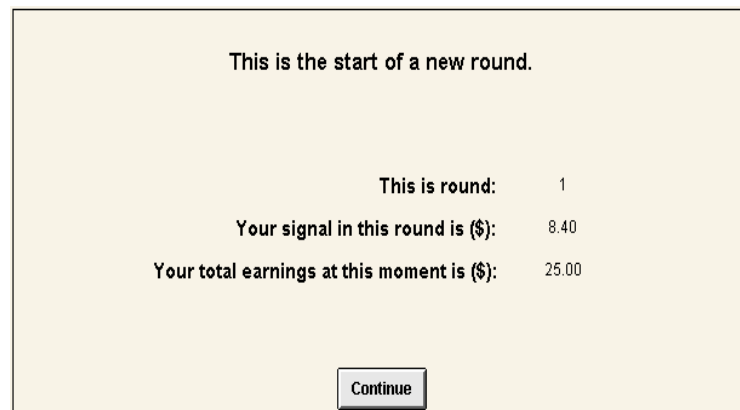


Figure-1

The computer also draws three other signals, each between \$0 and \$10 (and with each amount equally likely), one for each of the other three bidders in your group. Each bidder is informed only of his own signal, and is not informed of the signal of any other bidder in his group.

The value of the item is the *same* for all bidders and equal to the average of all four signals. If, for example, your signal is \$8.40 and the signals of the other three bidders are \$2.00, \$4.00 and \$6.00, then the value of the item is

$$\frac{\$8.40 + \$2.00 + \$4.00 + \$6.00}{4} = \$5.10.$$

While you observe your own signal prior to the auction, you observe the value of the item only at the end of the auction.

Your signal helps you narrow down the range of possible values for the item. If, for example, your signal is \$8.40, the lowest possible value for the item is

$$\frac{\$8.40 + \$0 + \$0 + \$0}{4} = \$2.10,$$

which would occur if every other bidder had a signal of \$0. The highest possible value for the item is

$$\frac{\$8.40 + \$10.00 + \$10.00 + \$10.00}{4} = \$9.60,$$

which would occur if every other bidder had a signal of \$10.00.

The Rules of the Auction

The auction begins after each bidder observes his signal and clicks on the “Continue” button in the above screen. In the auction, the price starts at \$0 but increases by \$0.05 every 0.20 seconds. At any moment you may drop out of the auction by clicking on the “Drop Out” button on your screen. (Figure 2 shows, for example, your screen if the price has reached \$4.30, your signal is \$8.40, and you have not yet dropped out.) If you drop out, your earnings for the current round are \$0. The auction ends as soon as three of the bidders in your group drop out. The item is sold to the remaining bidder, and he pays the price at which the last bidder dropped out. This remaining bidder earns an amount equal to the value of the item minus the purchase price.

| | |
|--|--|
| Notice that soon the auction starts - price starts increasing from \$0. | |
| Your signal for the item is (\$): 8.40 Price at this moment is (\$): 4.30 | Your Decision: <input type="button" value="Drop Out"/> |

Figure-2

The Results of the Auction

At the end of each auction, you will be notified to whom the item is sold (you or someone else), the four signals (including yours) that were randomly drawn by the computer, the value for the item (calculated as the average of these four signals), the purchase price paid by the buyer of the item in the current round, and your earnings for the current auction. Your computer screen will display the total you have earned so far. (The total includes a \$25.00 starting balance you are given at the beginning of the experiment.) If your total earnings fall below \$5, then you will be declared “bankrupt,” your participation in the experiment will end, and a new participant will take your place. You will be paid 65% of your total earnings at the end of today’s session.

| |
|--|
| $\text{Your Actual Earnings from an Experiment} = (\text{Total Earnings from the Experiment}) \times 0.65$ |
|--|

Figure 3 shows your screen if the item is sold to you in the first auction, your signal is \$8.40 (and the signals of the other three bidders are \$2.00, \$4.00 and \$6.00), the purchase price is \$4.45, and the value of the item is \$5.10 (i.e., the average of the four signals). In this case, your earnings for the current auction would be \$0.65 (= \$5.10 – \$4.45). Your total earnings at the end of current round, including your starting balance, would be \$25.65 (= \$25.00 + \$0.65).

| | | |
|--|------------|---|
| The item is sold to: | YOU | Four signals (including yours) that were randomly drawn by the computer for this round were: |
| Your signal for the item was (\$): | 8.40 | 8.40 |
| The value is found to be (\$): | 5.10 | 2.00 |
| Purchase price for the item was (\$): | 4.45 | 4.00 |
| Your earnings from this round is (\$): | 0.65 | 6.00 |
| Your total earnings after this round is (\$): | 25.65 | |

Figure-3

Figure 4 shows your screen if your total earnings fall below \$5.

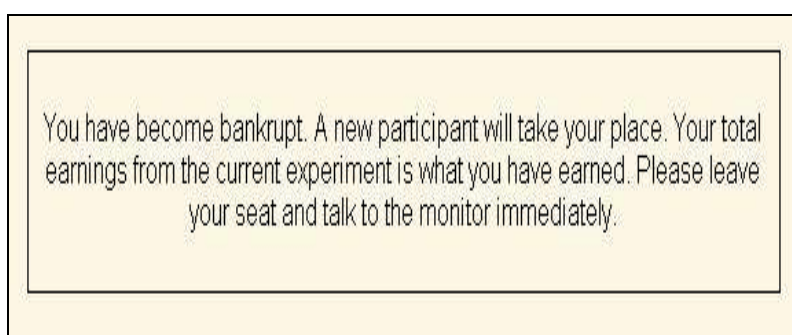


Figure-4

Some Examples

Example 1: Suppose the third bidder drops out when the price reaches \$4.25 and you have not yet dropped out. Then the item is sold to you, and you pay \$4.25. Your earnings equal the value of the item minus the \$4.25 purchase price, and may be either positive (when the value exceeds \$4.25) or negative (when the value is less than \$4.25). Every other bidder in your group earns zero.

Example 2: Suppose that you drop out at a price of \$5.50, and the third bidder drops out at a price of \$6.25. Then your earnings are zero. The item is sold to the last bidder remaining in the auction, and he pays a price of \$6.25. His earnings equal the value minus the \$6.25 purchase price.

You may not talk with any other participants during the experiment. If you have a question, please raise your hand and the lab monitor will come to answer your question.