

## INSTRUCTIONS

This is an experiment in the economics of market decision making. The National Science Foundation has provided funds for conducting this research. The instructions are simple, and if you follow them carefully and make good decisions you may earn a **CONSIDERABLE AMOUNT OF MONEY**, which will be **PAID TO YOU IN CASH** at the end of the experiment.

In this experiment we will create a market in which you will act as the buyers of a fictitious commodity in a sequence of trading periods. In each trading period you will be randomly grouped with three other bidders. A single unit of the commodity will be auctioned with the four of you as bidders. Your groupings will vary over a series of trading periods and will remain anonymous.

The value of the auctioned item ( $V^*$ ) will be randomly selected from the interval whose lower bound is \$50.00 and whose upper bound is \$950.00.

Your private information signal is randomly drawn from the interval  $V^*-\epsilon$ ,  $V^*+\epsilon$ . The value of the item can never be more than your signal value  $+\epsilon$ , or less than your signal value  $-\epsilon$ .

1. You will not enter bids. Instead, a price clock is shown on the lower right hand side of your screen. In each period, the clock will begin at \$50.00, the lowest possible value for the item, and will count up by \$1.00 very rapidly.
2. As long as you are willing to buy the item at the current price, you do nothing. As soon as the price on the screen reaches the maximum price you are willing to pay, hit any key. This will automatically drop you out of the bidding for the commodity in this trading period. Once you have dropped out of the bidding for a period, you cannot re-enter the auction until the next trading period.
3. After the first bidder drops out the auction, the clock will pause for a few seconds, and then begin counting up rapidly again with increments of \$0.50. After the second bidder drops out, the clock will again pause, then count up in increments of \$0.25.
4. The auction stops as soon as there is only one active bidder. This last bidder earns the item and makes a profit equal to the value of the item less the price at which the next-to-last bidder dropped out. That is

Profit = (Value of the item) – (price at which the next-to-last bidder dropped).

All other bidders earn zero profit. In case the last two bidders drop out at the same price, the computer will randomly decide who earned the item. In this case, the price paid will be the drop out price.

5. You will be given a starting capital credit balance of \$15.00. Any profit earned by you in the experiment will be added to this sum, and any losses incurred will be subtracted from this sum. The net balance of these transactions will be calculated and paid to you in CASH at the end of the experiment. The starting capital credit balance, and whatever subsequent profits you earn, permit you to suffer losses in one auction to be recouped in part or in total in later auctions. However, should your net balance at any time during the experiment drop to zero (or less) you will no longer be permitted to participate. Instead we will give you your participation fee and you'll be free to leave the auction.

You are permitted to bid in excess of your capital credit balance in any given period.

6. The number bidders remaining in the auction will always be displayed in the top right hand corner of your computer screen.
7. Once the bidding is completed for a period, profits for the high bidder will be calculated and balances updated. We will also report back on your computer screens the value of the item, the private information signals received, and the prices at which the bidder holding each signal dropped out of the bidding.
8. Your signal values are strictly private information and are not to be revealed to anyone else. You will be told the value of epsilon prior to bidding. However, you will not be told the value of  $V^*$ . You are not to reveal your bids or profits, nor are to speak with other subjects while the experiment is in progress. This is important for the validity of the experiment and will not be tolerated.
9. Everyone will receive \$6.00 irrespective of their earnings for participating in the experiment.

Let's summarize the main points. (1) The high bidder earns the item and earns a profit=value of item – highest drop out price. (2) Profits will be added to your starting balance of \$15.00, losses subtracted from it. Your balance at the end of the experiment will be paid to you in cash. If your balance turns negative, you are no longer allowed to bid. (3) Your private information signal is randomly drawn from the interval  $V^*-\epsilon$ ,  $V^*+\epsilon$ . The value of the item can never be more than your signal value plus  $\epsilon$ , or less than your signal value -  $\epsilon$ . (4) The value of the item will always be between \$50.00 and \$950.00.

#### ADDITIONAL INSTRUCTIONS

1. From now on, there will also be a private value element for the item –  $K_i$  (where  $i$  stands for bidder  $i$ ). In each period, one bidder will have  $K_i$  fixed at \$2.00. The other bidders in each group will have  $K_i$  fixed at zero. The value of the auctioned

item to bidder  $i$  will be  $V^*+K_i$ . In other words, in each trading period one bidder will value the item at  $V^*+\$2.00$  and the other bidders will value it at  $V^*$ .

The bidder with the positive value of  $K_i$  will be determined randomly for each group of bidders and for each trading period. You will always know your own value of  $K$ .