

Game Overview

The experiment consists of 30 rounds, including 2 practice rounds and 28 payment rounds. In each round, you will be allocated to a group of three participants. Two of you will be randomly assigned as buyers and the third participant will be assigned as seller. The groups are randomly rematched between rounds but your role remains the same.

An object will be sold in your group in each round. The buyers submit bids for the object and the buyer with the highest bid in the group will successfully buy the object. If more than one buyer chooses the same highest bid, the computer will determine by lottery which buyer will buy the product. At the end of the experiment, you will be paid by your total payoff in all non-practice rounds.

Object Value

An important piece of information is about the object value of the product you are bidding for. In each of the 30 rounds, each bidder's object value is drawn from one of the two distributions:

Distribution A: If a buyer's object value is drawn from the Distribution A, then

- with a 75% chance it is randomly drawn from the set of integers between 1 and 50, where each integer is equally likely to be drawn.
- with a 25% chance it is randomly drawn from the set of integers between 51 and 100, where each integer is equally likely to be drawn.

Distribution B: If a buyer's object value is drawn from the Distribution A, then

- with a 25% chance it is randomly drawn from the set of integers between 1 and 50, where each integer is equally likely to be drawn.
- with a 75% chance it is randomly drawn from the set of integers between 51 and 100, where each integer is equally likely to be drawn.

Therefore, if your value is drawn from the Distribution A, it can take on any integer value between 1 and 100, but it is three times more likely to take on a lower value, i.e., a value between 1 and 50. Similarly, if your value is drawn from the Distribution B, it can take on any integer value between 1 and 100, but it is three times more likely to take on a higher value, i.e., a value between 51 and 100.

In each of 30 rounds, each buyer's object value will be randomly and independently drawn from the Distribution A with a predetermined chance of $p\%$, and from the Distribution B with $(100 - p)\%$ chance. The buyers are informed of p before they submit their bids. Both buyers share the same p but their object values may be drawn from different distributions. The seller will not be informed of p but may purchase the information of p . See the game procedure for details.

Game Procedure

In each round, the game follows the procedure below:

1. Each seller chooses whether to purchase the information of p with a predetermined cost of information.
2. Each seller then sets a reserve price, which can be any integer between 0 and 100, inclusive. The bids that are lower than the reserve price will not win the auction.
3. Observing the seller's choices, each bidder simultaneously and independently submit a bid, which can be any integer between 1 and 100, inclusive. If you do not want to buy, you can submit any positive integer below the reserve price.
4. The bids are collected in each group and the object is allocated to the buyer with the highest bid greater than or equal to the reserve price.
5. All the players receive the feedback of the current round and move to the next round.

Payoff

Your payoff in each round is determined as follows.

For buyers, you get

- 0 if you did not win the auction or if your bid is below the reserve price.
- **Your object value - your bid** if you won the auction.

For seller, you get

- 0 if both bids are less than your reserve price.
- **The highest bid** if at least one bid is greater than or equal to your reserve price.
- In addition, if you purchase the information of p , the cost will be deducted from your payoff.

We encourage you to earn as much cash as you can. Please raise your hand if you have any questions.