Instructions

Thank you for participating in this experimental game. In this game, you will play the role of a firm that produces different colored balls and then sells those balls into a market of buyers. In each round of the game, you will be faced with a pricing decision, meaning you will have to choose what price to set for each color ball you produce. At the beginning of the game, you will be told the number and color of the balls that your firm produces. These characteristics have been randomly selected and assigned to you for this experiment. They are constant and will not change during the experiment.

Each round represents a single time period in which you have the opportunity to sell your goods (colored balls) into the market. You are the only producer of goods in this market, so there is no competition from other firms. The market is made up of 10,000 automated computer buyers. Buyers want to buy a single copy of a ball of each color.

Based on the prices that you set for your goods, the computer buyers will decide if they want to buy the goods from you or not. The computer buyers cannot buy goods from anyone other than your firm. Once you have chosen the prices for your goods, the computer buyers will decide if they want to buy the goods at your offered price. After the computer buyers make their decision, the round ends and you will be told how many of each ball of each color you sold. You will play for 40 rounds. There is no time limit for you to make your pricing choices in each round.

The automated computer buyers have been randomly assigned a value for each colored ball that you are looking to sell. The maximum value that a buyer may have for a single ball is 100 points. The minimum value that a buyer may have for a single ball is 0 points. The buyers make their decision by comparing the price you are offering for each ball or combination of balls and their randomly assigned value for the balls. If their value is greater than or equal to the price, then the computer buyer automatically purchases that good.

For example, if you set the price for the red ball at 50 points and computer Buyer A values the red ball at 75 points, then Buyer A purchases that ball ($75 \geq 50$). Alternatively, if computer Buyer B values the red ball at 10 points, then Buyer B does not purchase the ball ($10 < 50$). If these were the only two buyers in the market, then at the end of the round you would have gained 50 points, since you sold one red ball for 50 points to Buyer A.

Another example: Buyer A values the red ball at 75 and the green ball at 60. Buyer B values the red ball at 10 and the green ball at 90. Assume you set the price of the red ball at 50 points and the price of the green ball at 40 points. Then Buyer A would buy both the red ball ($75 \geq 50$) and the green ball ($60 \geq 40$). Buyer B would buy the green ball ($90 \geq 40$) but not the red ball ($10 < 50$). If these were the only two buyers in the market, then at the end of the round you would have gained 130 points, since you sold one red ball for 50 points to Buyer A and two green balls for 40 points each, one to Buyer A and one to Buyer B.

Each type of ball costs you nothing to make (zero cost) and you can make as many balls as there is demand for them from the market. For every ball you sell, you receive the sales price as profit, since there is no cost to production. Balls that remain unsold at the end of the round are disposed of at no cost to you.

We will reward you at the end of the game proportionally to your profit: specifically, your reward will be based on the number of balls you sold times the price at which you sold them (quantity $\times$ price). For example, if you sold 5,000 red balls at 4 points each, your profit for that round is 20,000 points.

We will randomly select three rounds and compute the average for your reward, so you should do your best in each round! Recall there are a total of 40 rounds. The minimum you can earn is $5, which is your show up fee. The rest of your earnings will be calculated as follows. For the three randomly selected round, we will calculate your profit, i.e., the number of balls you sold times the price at which you sold them in the randomly chosen round in each round. We will then calculate the mean for those three rounds and use a set conversion rate to convert points to dollars. For example, if your conversion rate is 1/1000 and your profit for the first randomly selected round is 30,000 points, your profit for the second is 10,000 points, and your profit for the third if 50,000 points and you would earn $30 real dollars, plus your $5 show up fee. The conversion rate in the example is not the conversion rate you will see on your screens.

At the start of the experiment, you will be told what the set conversion rate is from points to dollars. Additionally, in each round you will be informed of your performance both in terms of points and dollars.

We are now about the begin the experiment. Please put all of your stuff on the ground except for the instructions. You will start by completing a brief survey that contains basic demographic questions. You will then be asked a couple of questions to gauge your comprehension of the instructions I just read. After the comprehension questions you will play four practice rounds designed to give you a clear understanding of the experiment. Your performance on these practice rounds will NOT figure into your final payment – they are simply for practice. After you have completed the practice rounds the experiment will begin and your performance will determine your final payment.

Again, the experiment should take around 60 minutes but it is self-paced so you can take as little or as much time as you want. Once you are done with the experiment, please raise your hand and I will come to your computer and record your final payment. We will then go together to the back of the room, and I will pay you your earnings in cash.

Any questions?