

## ONLINE APPENDIX TO “ASSIGNMENT MARKETS: THEORY AND EXPERIMENTS”

*Instructions for buyers (Minimum Price)*

Thank you for participating! You have earned 5 U\$ for showing up on time. The instructions explain how you can make decisions and earn more money, so please read carefully. Talking with other participants or use of cell phones is **not** permitted during the course of this experiment. If you have questions at any point, please, raise your hand and an experimenter will come to assist you.

**Experimental points**

During the experiment you have the opportunity to earn experimental dollars (E\$). At the end of the experiment, your earnings will be converted at ratio 5 E\$ to 1 US\$ and paid out to you in US\$ in addition to the show up fee.

**Overview**

You will be paired randomly with a group of other participants. Your identity in this group will remain anonymous, and likewise, the identities of all other group members will remain anonymous.

In this experiment you are a **buyer**.

Your group will consist of 3 sellers and 3 buyers. You are one of the three buyers. Your group will remain together and the roles will remain the same during the entire experiment.

**Widgets**

In each round you will have the opportunity to buy one widget from a seller. Today's experiment will have 15 identical rounds.

Each widget has a value to you. Each seller has one widget for sale. Each buyer has different values for the widgets. Likewise, each seller has a different value for their own widget. Every buyer and seller will only see their own values for the widgets. The values of widgets for buyers and sellers will remain the same across rounds throughout this experiment.

**Trading**

Each round consists of two stages.

In the first stage of each round, each seller will post their desired minimum price

for their widget for you and the other buyers to see. As a buyer, you will not actively participate in this stage. After each of the sellers has submitted their minimum price, all players will then proceed to the second, trading stage.

Then, in the second stage, you will try to buy one widget by submitting bids to sellers. When bidding, you will see a table with information about the widgets:

Seller	Widget	Minimum Price	Your Value	Outstanding Bid	Enter Your Bid
Seller 1	Widget 1	5	7	2	<input type="text" value="Enter Your Bid"/> <input type="button" value="Bid"/>
Seller 2	Widget 2	3	1	0	<input type="text" value="Enter Your Bid"/> <input type="button" value="Bid"/>
Seller 3	Widget 3	4	9	4	<input type="text" value="Enter Your Bid"/> <input type="button" value="Bid"/>

You can submit **whole number (integer)** bids for any of the widgets listed as long as your bid is at or above the minimum price. If you have the highest bid for the widget when the round ends, then you purchase this widget at a price equal to your bid. If you did not have the highest bid for any object at the end of the round, then you do not buy any widget and earn 0 E\$.

If at any time you have the highest bid for a widget, this will be noted on the top of your screen.

You are restricted to purchasing one object per round. This means that once you have the highest bid for an object you will not be permitted to bid for another object until another buyer in your group outbids you for the same object.

There are four important rules for bidding:

- Your bid must be higher than the currently highest bid;
- Your bid must be higher than the minimum price;
- You may not submit a bid that is higher than your value for the widget;
- You may not have the highest bid for more than one object at a time.

The second stage ends when there is no bidding activity for 40 seconds. You will see an indicator after 20 seconds of no bidding activity. At the end of each round you will be told your earnings for that round. Only one round will be randomly chosen to be paid at the end of the experiment.

**Earnings**

The earnings in each round equal the total value of the widget you bought minus your total payment (bid) for buying that widget:

$$\text{Earnings} = \text{Widget's Value} - \text{Bid}$$

For instance, if your value for a widget is 7 E\$ and you bought the widget with bid of 3 E\$, then your earnings for that round will be 4 E\$. If you do not buy the widget, your earnings for the round will be 0 E\$.

Remember that only one round out of 15 will be randomly chosen at the end of the experiment, and you will be paid the amount earned in that round in US\$.

**End of Experiment**

At the end of the experiment you will be taken to a screen that displays your E\$ earnings in each round, the round that was randomly chosen as the payoff round, and the earnings from that round converted into US\$. Please wait in your seat once you reach this screen. An experimenter will call you one at a time to be paid privately. When called, please take all belongings up since the experiment ends once you have received your payment.

**Important points to remember**

- You can not lose money by trading (the bidding system prevents you from bidding too high);
- If you do not buy a widget, you earn 0 E\$;
- Each buyer may only buy one widget per round;
- Both buyers and sellers may have different values for the same widget;
- Only one round will be chosen to be paid in US\$;
- Bidding for the round stops after 40 seconds with no bids submitted;
- Today's experiment will include 15 rounds;
- Your value for your widget will always be the same, but the minimum prices that sellers submit and the bids that buyers submit may change between rounds.

*Instructions for sellers (Minimum Price)***Experiment Instructions**

Thank you for participating! You have earned 5 US\$ for showing up on time. The instructions explain how you can make decisions and earn more money, so please read carefully. Talking with other participants or use of cell phones is **not** permitted during the course of this experiment. If you have questions at any point, please, raise your hand and an experimenter will come to assist you.

**Experimental Points**

During the experiment you have the opportunity to earn experimental dollars (E\$). At the end of the experiment, your earnings will be converted at ratio 5 E\$ to 1 US\$ and paid out to you in US\$ in addition to the show up fee.

**Overview**

You will be paired randomly with a group of other participants. Your identity in this group will remain anonymous, and likewise, the identities of all other group members will remain anonymous.

In this experiment you are a **seller**.

Your group will consist of 3 sellers and 3 buyers. You are one of the three sellers. Your group will remain together and the roles will remain the same during the entire experiment.

**Your widget**

You will be endowed with one widget in each round of the experiment and given the opportunity to sell it to a buyer for E\$. Today's experiment will have 15 identical rounds. Each seller has only one widget. Your widget has a value to you and to other participants.

The value for the widget may not be the same for different buyers. Likewise, each seller has a different value for their own widget. Every buyer and seller will only see their own values for the widgets. The values will remain constant across rounds throughout this experiment.

**Trading**

Each round consists of two stages.

In the first stage of the experiment you and each of the other sellers in your group will post their desired minimum price for their widget. This value can be set between 1 and 800 on a slider. When setting your desired price, you will see the following slider,

**Please submit the minimum price :**

Once you have set the minimum price that you like, click on the **Next** button to submit. Note that the minimum price that you submit must be greater or equal to your value for your widget. If it is not, then the minimum price for your widget will be automatically increased to match your value of your widget. After each of the sellers has submitted their minimum price, the first stage ends and all players will then proceed to the second, trading stage.

Then, in the second stage, the buyers will bid for the widgets. As a seller, you will not actively participate in this stage. The buyers with the highest bid will purchase your widget. Buyers are only allowed to make bids that exceed the minimum price that you posted in the first stage. When buyers are bidding, you will see a table with information about the widgets:

Widget	Your Value	Minimum Price	Outstanding Bid
Widget 1	-	5	2
(Your) Widget 2	1	3	0
Widget 3	-	4	4

Trading stage ends when there is no bidding activity for 40 seconds. At the end of each round you will be told your earnings for that round. Only one round will be randomly chosen to be paid at the end of the experiment.

**Earnings**

The earnings in each round equal the money you received for selling your widget minus your value for the widget:

$$\text{Earnings} = \text{Bid} - \text{Widget's Value}$$

For instance, if your value for your widget is 3 E\$ and the bid for your widget is 7 E\$, then you earn 4 E\$ for that round. If you do not sell the widget, your earnings for the round will be 0 E\$.

Remember that only one round out of 15 will be randomly chosen at the end of the experiment, and you will be paid the amount earned in that round in US\$.

**End of Experiment** At the end of the experiment you will be taken to a screen that displays your E\$ earnings in each round, the round that was randomly chosen as the payoff round, and the earnings from that round converted into US\$. Please wait in your seat once you reach this screen. An experimenter will call you one at a time to be paid privately. When called, please take all belongings since the experiment ends once you have received your payment.

**Important points to remember**

- You can not lose money by trading (the bidding system prevents you from setting the minimum price too low);
- If you do not sell, you earn 0 E\$;
- You will only have one widget to trade per round;
- Each buyer may only buy one widget per round;
- Both buyers and sellers may have different values for the same widget;
- Only one round will be chosen to be paid in US\$;
- Bidding for the round stops after 40 seconds with no bids submitted;
- Today's experiment will have 15 rounds;
- Your value for your widget will always be the same, but the minimum prices that sellers submit and the bids that buyers submit may change between rounds.

### *Instructions for buyers (Double Auction)*

Thank you for participating! You have earned 5 U\$ for showing up on time. The instructions explain how you can make decisions and earn more money, so please read carefully. Talking with other participants or use of cell phones is **not** permitted during the course of this experiment. If you have questions at any point, please, raise your hand and an experimenter will come to assist you.

#### **Experimental points**

During the experiment you have the opportunity to earn experimental dollars (E\$). At the end of the experiment, your earnings will be converted at ratio 5 E\$ to 1 US\$ and paid out to you in US\$ in addition to the show up fee.

#### **Overview**

You will be paired randomly with a group of other participants. Your identity in this group will remain anonymous, and likewise, the identities of all other group members will remain anonymous.

In this experiment you are a **buyer**.

Your group will consist of 3 sellers and 3 buyers. You are one of the three buyers. Your group will remain together and the roles will remain the same during the entire experiment.

#### **Widgets**

In each round you will have the opportunity to buy one widget from a seller. Today's experiment will have 15 identical rounds.

Each widget has a value to you. Each seller has one widget for sale. Each buyer has different values for the widgets. Likewise, each seller has a different value for their own widget. Every buyer and seller will only see their own values for the widgets. The values of widgets for buyers and sellers will remain the same across rounds throughout this experiment.

#### **Trading**

In each round you will try to buy one widget by submitting bids to sellers. When bidding, you will see a table with information about the widgets:

Seller	Widget	Your Value	Current Minimum Price	Outstanding Bid	Enter Your Bid
Seller 1	Widget 1	7	5	2	<input type="text" value="Enter Your Bid"/> <input type="button" value="Bid"/>
Seller 2	Widget 2	1	3	0	<input type="text" value="Enter Your Bid"/> <input type="button" value="Bid"/>
Seller 3	Widget 3	9	4	4	<input type="text" value="Enter Your Bid"/> <input type="button" value="Bid"/>

At the same time sellers will be posting and revising the minimum price for their widgets - the minimum price at which they would sell their widget.

You can submit **whole number (integer)** bids for any of the widgets listed, once the seller of that widget posts the minimum price. Your bid has to be at or above the minimum price.

If you have the highest bid for the widget when the round ends, and this bid is higher than the minimum price posted by the seller for this widget, then you purchase this widget at a price equal to your bid. If you did not have the highest bid for any object at the end of the round, then you do not buy any widget and earn 0 E\$.

If at any time you have the highest bid for a widget, this will be noted on the top of your screen.

You are restricted to purchasing one object per round. This means that once you have the highest bid for an object you will not be permitted to bid for another object until another buyer in your group outbids you for the same object.

There are five important rules for bidding:

- Your bid must be higher than the currently highest bid;
- Your bid must be higher than the current minimum price;
- You may not submit a bid that is higher than your value for the widget;
- You may not have the highest bid for more than one object at a time;
- Sellers can only decrease their minimum prices.

Trading ends when there are no new bids or minimum prices for 40 seconds. You will see an indicator after 20 seconds of no bidding activity. At the end of each round you will be told your earnings for that round. Only one round will be randomly chosen to be paid at the end of the experiment.

**Earnings**

The earnings in each round equal the total value of the widget you bought minus your total payment (bid) for buying that widget:

$$\text{Earnings} = \text{Widget's Value} - \text{Bid}$$

For instance, if your value for a widget is 7 E\$ and you bought the widget with bid of 3 E\$, then your earnings for that round will be 4 E\$. If you do not buy the widget, your earnings for the round will be 0 E\$.

Remember that only one round out of 15 will be randomly chosen at the end of the experiment, and you will be paid the amount earned in that round in US\$.

**End of Experiment**

At the end of the experiment you will be taken to a screen that displays your E\$ earnings in each round, the round that was randomly chosen as the payoff round, and the earnings from that round converted into US\$. Please wait in your seat once you reach this screen. An experimenter will call you one at a time to be paid privately. When called, please take all belongings up since the experiment ends once you have received your payment.

**Important points to remember**

- You can not lose money by trading (the bidding system prevents you from bidding too high);
- If you do not buy a widget, you earn 0 E\$;
- Each buyer may only buy one widget per round;
- Both buyers and sellers may have different values for the same widget;
- Only one round will be chosen to be paid in US\$;
- Bidding for the round stops after 40 seconds with no bids or minimum prices submitted;
- Today's experiment will include 15 rounds;
- Your value for your widget will always be the same, but the minimum prices that sellers submit and the bids that buyers submit may change between rounds.

*Instructions for sellers (Double Auction)***Experiment Instructions**

Thank you for participating! You have earned 5 US\$ for showing up on time. The instructions explain how you can make decisions and earn more money, so please read carefully. Talking with other participants or use of cell phones is **not** permitted during the course of this experiment. If you have questions at any point, please, raise your hand and an experimenter will come to assist you.

**Experimental Points**

During the experiment you have the opportunity to earn experimental dollars (E\$). At the end of the experiment, your earnings will be converted at ratio 5 E\$ to 1 US\$ and paid out to you in US\$ in addition to the show up fee.

**Overview**

You will be paired randomly with a group of other participants. Your identity in this group will remain anonymous, and likewise, the identities of all other group members will remain anonymous.

In this experiment you are a **seller**.

Your group will consist of 3 sellers and 3 buyers. You are one of the three sellers. Your group will remain together and the roles will remain the same during the entire experiment.

**Your widget**

You will be endowed with one widget in each round of the experiment and given the opportunity to sell it to a buyer for E\$. Today's experiment will have 15 identical rounds. Each seller has only one widget. Your widget has a value to you and to other participants.

The value for the widget may not be the same for different buyers. Likewise, each seller has a different value for their own widget. Every buyer and seller will only see their own values for the widgets. The values will remain constant across rounds throughout this experiment.

**Trading**

In each round, the buyers and sellers will try to trade widgets. Buyers will post

bids, while each seller will post and revise down the minimum price at which they agree to sell. As a seller you can post (and revise down) the minimum price for your own (and only your own) widget. The buyers with the highest bid will purchase your widget as long as that bid exceeds your minimum price. If there is no bid that exceeds your minimum price, you will not make a transaction and your earnings for the round will be zero. While the trading continues, you will see a table with information about the widgets:

Widget	Your Value	Current Minimum Price	Outstanding Bid	Enter Minimum Price
Widget 1	-	5	2	
(Your) Widget 2	1	3	0	<input type="text" value="Enter Minimum Price"/> <input type="button" value="Submit"/>
Widget 3	-	4	4	

At any point you can submit a **whole number (integer)** minimum price for your widget or wait for trading to end.

There are two important rules for setting the minimum price:

- If you submit a new minimum price, it has to be lower than before;
- You may not submit a minimum price that is lower than your value for the widget.

Trading ends when there are no new bids or minimum prices for 40 seconds.

At the end of each round you will be told your earnings for that round. Only one round will be randomly chosen to be paid at the end of the experiment.

### Earnings

The earnings in each round equal the money you received for selling your widget minus your value for the widget:

$$\text{Earnings} = \text{Bid} - \text{Widget's Value}$$

For instance, if your value for your widget is 3 E\$ and the bid for your widget is 7 E\$, then you earn 4 E\$ for that round. If you do not sell the widget, your earnings for the round will be 0 E\$.

Remember that only one round out of 15 will be randomly chosen at the end of the experiment, and you will be paid the amount earned in that round in US\$.

**End of Experiment**

At the end of the experiment you will be taken to a screen that displays your E\$ earnings in each round, the round that was randomly chosen as the payoff round, and the earnings from that round converted into US\$. Please wait in your seat once you reach this screen. An experimenter will call you one at a time to be paid privately. When called, please take all belongings since the experiment ends once you have received your payment.

**Important points to remember**

- You can not lose money by trading (the bidding system prevents you from setting the minimum price too low);
- If you do not sell, you earn 0 E\$;
- You will only have one widget to trade per round;
- Each buyer may only buy one widget per round;
- Both buyers and sellers may have different values for the same widget;
- Only one round will be chosen to be paid in US\$;
- Bidding for the round stops after 40 seconds with no bids or minimum prices submitted;
- Today's experiment will have 15 rounds;
- Your value for your widget will always be the same, but the minimum prices that sellers submit and the bids that buyers submit may change between rounds.

*Instructions for buyers (Pit Trading and Complete Information)*

**Experiment Instructions**

Thank you for participating! You have earned 5 US\$ (*CI - 10 US\$*) for showing up on time. The instructions explain how you can make decisions and earn more money, so please read carefully. *PT - Talking with other participants or use of cell phones is **not** permitted during the course of this experiment. If you have questions at any point, please, raise your hand and an experimenter will come to assist you.*

**Experimental Points**

During the experiment you have the opportunity to earn experimental dollars (E\$). At the end of the experiment, your earnings will be converted at ratio 5 E\$ to 1 US\$ and paid out to you in US\$ in addition to the show up fee.

**Overview**

You will be paired randomly with a group of other participants. Your identity in this group will remain anonymous, and likewise, the identities of all other group members will remain anonymous.

In this experiment you are a **buyer**.

Your group will consist of 3 sellers and 3 buyers. You are one of the three buyers. Your group will remain together and the roles will remain the same during the entire experiment.

**Widgets**

Today's experiment will have 15 identical rounds. Each seller will be endowed with one widget in each round of the experiment. In each round you will have the opportunity to buy one widget from one of the three sellers for E\$.

Each seller has only one widget for sale. Each buyer has different values for the widgets sold. Likewise, each seller has a different value for their own widget. *PT - Every buyer and seller will only see their own values for the widgets. CI - Every player will see all values for all widgets for every other player, buyers and sellers.* The values of widgets for buyers and sellers will remain the same across rounds throughout this experiment.

**Trading**

In each round you will try to buy one widget by negotiating a trade with the sellers. At the same time, sellers will be negotiating with you and the other buyers.

*PT* - You will see a table with information about the widgets - the seller of the widget and its value to you.

Seller	Widget	Your Value
Seller 1	Widget 1	3
Seller 2	Widget 2	2
Seller 3	Widget 3	4

*CI* - You will see a table with information about the widgets - the seller of the widget and its value to you, the other buyers, and to the seller.

Seller	Widget	Buyer 1's Value	Buyer 2's Value	Buyer 3's Value	Seller's Value
Seller 1	Widget 1	3	4	5	4
Seller 2	Widget 2	2	6	4	1
Seller 3	Widget 3	4	2	5	2

You will also see three chatboxes (one for each seller) and two fields below each chatbox to enter a message or an offer to the seller:

**Chat with Seller 1 (sells widget 1)**

**Buyer 1** message from you  
**Seller 1** message from Seller 1

**Chat with Seller 2 (sells widget 2)**

**Buyer 1** message from you  
**Seller 2** message from Seller 2

**Chat with Seller 3 (sells widget 3)**

**Buyer 1** message from you  
**Seller 3** message from Seller 3

You can submit text messages or offers to trade at a particular price to any of

the three sellers. Messages can contain any text. Offers must be **whole numbers (integers)** and are submitted through the separate “Send Offer” box. Remember to make and accept offers through the offer box, because verbal agreements through messages will not be registered by the trading mechanism.

All communication is private. For example, messages and offers in the chatbox “Chat with Seller 2” will only be seen by you and seller 2.

Buyers’ offers have to be at or below the value of the widget to the buyer. Sellers’ offers have to be at or above the value of the widget to the seller. Similarly, a buyer can not accept an offer that is above his value, and the seller can not accept an offer that is below his value. This ensures that neither party can lose money.

Once one side sends an offer, the counterpart can agree or decline. It is also possible to back out of a trade or your own offer at any moment during the round.

If the other party accepts the trade, **the purchase will not happen instantaneously**. Both you and the seller can still change your mind and negotiate another deal until the round ends.

If you and one of the sellers have a standing accepted trade when the round ends, then you purchase the widget from the seller at a price equal to the agreed price. If you did not have the trade at the end of the round, then you do not buy any widget and earn 0 E\$. If at any time you have a standing trade, this will be indicated at the top of your screen.

You are restricted to purchasing one widget per round. This means that once you have a standing offer or a trade you will not be permitted to make an offer for another widget until you cancel your current offer/trade by clicking the “Cancel offer/trade” button.

Trading ends after 4 minutes. You will see a timer with the remaining time.

At the end of each round you will be told your earnings for that round and prices for all traded widgets. Only one round will be randomly chosen to be paid at the end of the experiment.

- If you submit a new minimum price, it has to be lower than before;
- You may not submit a minimum price that is lower than your value for the

widget.

### **Earnings**

The earnings in each round equal the value of the widget you bought minus your payment (agreed price) for buying that widget:

$$\text{Earnings} = \text{Widget's Value} - \text{Price}$$

For instance, if your value for a widget is 7 E\$ and you bought the widget at a price of 3 E\$, then your earnings for that round will be 4 E\$. If you do not buy the widget, your earnings for the round will be 0 E\$.

Remember that only one round out of 15 will be randomly chosen at the end of the experiment, and you will be paid the amount earned in that round in US\$.

**End of Experiment** At the end of the experiment you will be taken to a screen that displays your E\$ earnings in each round, the round that was randomly chosen as the payoff round, and the earnings from that round converted into US\$. *PT - Please wait in your seat once you reach this screen. An experimenter will call you one at a time to be paid privately. When called, please take all belongings since the experiment ends once you have received your payment. CI - At this point the experiment is over, and you may close the browser window. Please allow some time for processing of Venmo payments.*

### **Important points to remember**

- You can not lose money by trading (the trading system prevents you from making or accepting an offer that is too high);
- If you do not buy a widget, you earn 0 E\$;
- You will only have one widget to trade per round;
- Each buyer may only buy one widget per round;
- Both buyers and sellers may have different values for the same widget;
- Both buyers and sellers are free to change their minds during the round;
- Only one round will be chosen to be paid in US\$;
- Trading for the round stops after 4 minutes;
- Today's experiment will have 15 rounds;

- Values for the widgets will always be the same, but the trading may result in different prices each round.

*Instructions for sellers (Pit Trading and Complete Information)***Experiment Instructions**

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**Overview**

You will be paired randomly with a group of other participants. Your identity in this group will remain anonymous, and likewise, the identities of all other group members will remain anonymous.

In this experiment you are a **seller**.

Your group will consist of 3 sellers and 3 buyers. You are one of the three sellers. Your group will remain together and the roles will remain the same during the entire experiment.

**Widgets**

Today's experiment will have 15 identical rounds. Each seller will be endowed with one widget in each round of the experiment. As a seller, you will be endowed with one widget in each round of the experiment and given the opportunity to sell it to a buyer for E\$.

Each seller has only one widget for sale. Each buyer has different values for the widgets sold. Likewise, each seller has a different value for their own widget. *PT - Every buyer and seller will only see their own values for the widgets. CI - Every player will see all values for all widgets for every other player, buyers and sellers.* The values of widgets for buyers and sellers will remain the same across rounds throughout this experiment.

## Trading

In each round you will try to sell your widget by negotiating a trade with the buyers. At the same time buyers will be negotiating with you and the other sellers.

*PT* - You will see a table with information about your widget - in this case you are selling widget 2, which has value 300 to you.

Seller	Widget	Your Value
Seller 1	Widget 1	-
You (Seller 2)	(Your) Widget 2	3
Seller 3	Widget 3	-

*CI* - You will see a table with information about the widgets - in this case you are selling widget 2, which has value 1 to you. You will also see the value of other widgets to their sellers and to the buyers.

Seller	Widget	Buyer 1's Value	Buyer 2's Value	Buyer 3's Value	Seller's Value
Seller 1	Widget 1	3	4	5	4
(You) Seller 2	(Your) Widget 2	2	6	4	1
Seller 3	Widget 3	4	2	5	2

You will also see three chatboxes (one for each buyer) and two fields below each chatbox to enter a message or an offer to the buyer:

The image shows a screenshot of a trading interface with three chat windows, each for a different buyer. Each chat window has a header, a message from the seller, a message from the buyer, and two input fields at the bottom: 'Enter Your Message' with a 'Send Message' button, and 'Enter Your Offer' with a 'Send Offer' button.

**Chat with Buyer 1**  
**Seller 3** message from you  
**Buyer 1** message from Buyer 1

Enter Your Message Send Message Enter Your Offer Send Offer

**Chat with Buyer 2**  
**Seller 3** message from you  
**Buyer 2** message from Buyer 2

Enter Your Message Send Message Enter Your Offer Send Offer

**Chat with Buyer 3**  
**Seller 3** message from you  
**Buyer 3** message from Buyer 3

Enter Your Message Send Message Enter Your Offer Send Offer

You can submit text messages or offers to trade at a particular price to any of the three buyers. Messages can contain any text. Offers must be **whole numbers (integers)** and are submitted through the separate “Send Offer” box. Remember to make and accept offers through the offer box, because verbal agreements through messages will not be registered by the trading mechanism.

All communication is private. For example, messages or offers in the chatbox “Chat with Buyer 2” will only be seen by you and buyer 2.

Buyers’ offers have to be at or below the value of the widget to the buyer. Sellers’ offers have to be at or above the value of the widget to the seller. Similarly, a buyer can not accept an offer that is above his value, and the seller can not accept an offer that is below his value. This ensures that neither party can lose money.

Once one side sends an offer, the counterpart can agree or decline. It is also possible to back out of a trade or your own offer at any moment during the round.

If the other party accepts the trade, **the purchase will not happen instantaneously**. Both you and the buyer can still change your mind and negotiate another deal until the round ends.

If you and one of the buyers have a standing accepted trade when the round ends, then you sell the widget to the buyer at a price equal to the agreed price. If you did not have the trade at the end of the round, then you do not sell your widget and earn 0 E\$. If at any time you have a standing trade, this will be indicated at the top of your screen.

You have only one widget to sell every round. This means that once you have a standing offer or a trade you will not be permitted to make an offer to another buyer until you cancel your current offer/trade by clicking the “Cancel offer/trade” button.

Trading ends after 4 minutes. You will see a timer with the remaining time.

At the end of each round you will be told your earnings for that round and prices for all traded widgets. Only one round will be randomly chosen to be paid at the end of the experiment.

- If you submit a new minimum price, it has to be lower than before;
- You may not submit a minimum price that is lower than your value for the widget.

### **Earnings**

The earnings in each round equal the money you received for selling your widget minus your value for the widget:

$$\mathbf{Earnings = Price - Widget's Value}$$

For instance, if your value for your widget is 3 E\$ and the accepted offer (price) for your widget is 7 E\$, then you earn 4 E\$ for that round. If you do not sell the widget, your earnings for the round will be 0 E\$.

Remember that only one round out of 15 will be randomly chosen at the end of the experiment, and you will be paid the amount earned in that round in US\$.

### **End of Experiment**

At the end of the experiment you will be taken to a screen that displays your E\$ earnings in each round, the round that was randomly chosen as the payoff round, and the earnings from that round converted into US\$. *PT - Please wait in your seat once you reach this screen. An experimenter will call you one at a time to be paid*

*privately. When called, please take all belongings since the experiment ends once you have received your payment. CI - At this point the experiment is over, and you may close the browser window. Please allow some time for processing of Venmo payments.*

**Important points to remember**

- You can not lose money by trading (the trading system prevents you from making or accepting an offer that is too low);
- If you do not sell, you earn 0 E\$;
- You will only have one widget to trade per round;
- Each buyer may only buy one widget per round;
- Both buyers and sellers may have different values for the same widget;
- Both buyers and sellers are free to change their minds during the round;
- Only one round will be chosen to be paid in US\$;
- Trading for the round stops after 4 minutes;
- Today's experiment will have 15 rounds;
- Values for the widgets will always be the same, but the trading may result in different prices each round.