WELCOME!

Please turn off all electronic devices and place them in your bag or under your desk.

Throughout the experiment, please do not talk to anybody else and please remain silent at all times. If you have any questions, raise your hand and the experimenter will come to personally assist you.

Thank you for participating in this experiment. By showing up on time, you have automatically earned a $7 payment. If you follow the instructions carefully and make good decisions, you can earn additional money. The amount of money that you ultimately earn in this experiment depends on your decisions and the decisions of others. This session will last approximately one hour. At the end of the session, you will be paid privately in cash.

The experiment will be run entirely on the computer and all interactions between yourself and others will take place via the computer terminal. There are a total of 20 rounds in this experiment. At the end of the experiment, one of the 20 rounds will be randomly selected and your monetary payment will be determined based on the outcome of that round. Each of the 20 rounds is equally likely to be selected. Thus, it is in your best interest to take each round seriously. Each round is self-contained: your decisions in one round will not affect your opportunities or earnings in another round.

This experiment is about matching. There are two groups in the experiment: firms and workers. You will be randomly assigned to the role of either WORKER A or WORKER B. Your role will remain the same across all 20 rounds of the experiment. In each round, you will be randomly and anonymously paired with a worker who is assigned to the other role. In other words, if your role is WORKER A then you will be paired with someone in the role of WORKER B in each round (and vice versa).

Your goal in each round is to match with one of the two firms: FIRM A or FIRM B. The roles of the firms are computerized. They are programmed to behave in a certain way, which will be discussed in more detail shortly. You will earn different payments from different matches. The payments corresponding to all possible matches will be shown to you on your screen. There will be four lists on your screen (one for each firm and one for each worker). A firm's list contains two workers and it shows the order in which the firm will be making offers to match with the different workers. A worker's list contains two firms and it shows how much money the worker would earn if matched with the different firms. These lists will remain the same across all 20 rounds of the experiment.

As a worker, if you are matched with the firm in the first position of your list in a given round, you will earn a payment of $20 for that round. If you are matched with the firm in the second position of your list in a given round, you will earn a payment of $15 for that round. Remaining unmatched will result in a payment of $0 for that round.

To determine which firm you are matched with, you will send a message in each round. This message is sent to the computer. It is very important that you understand what a message is since the messages sent by both you and the other worker in your pair determine which firm you are matched with. A message is a ranking of the firms. The message may or may not include all the firms. Thus, although there are two firms you could potentially be matched with, your message can contain either one or two firms.

The way the computer uses the messages to determine which firm you are matched with will be explained below. The computer will go through these steps on its own and you will not observe this process in each round. Instead, you will only see which firm you are matched with and how much money you have earned at the end of each round. However, we will go through these steps so you understand how the matches are calculated.

Before we go through the procedure in detail, we will summarize the main ideas. Essentially, the computer uses the message you submit to decide which firms' offers to accept and reject on your behalf. There are two rules that describe this process.

1. The computer never matches you with a firm that you have not included in your submitted message. This is because, even if that firm makes an offer to match with you, the computer will reject that offer.

2. The computer always matches you with the highest ranked firm (according to your submitted message) that has made you an offer. If you receive an offer from only one firm and that firm is included in your message, then the computer will accept that offer. If you receive offers from both firms and both firms are included in your message, then the computer will accept the offer from the firm that you ranked higher in your message and reject the other offer.

STEP 0: All firms and workers are unmatched. Workers (YOU) send messages to the computer. These messages are a ranking of the firms that the computer will use in the steps below.

NOTE: THE REMAINING STEPS ARE PERFORMED BY THE COMPUTER

STEP 1: Firms propose offers.

Each firm makes an offer to the first worker on its list.

STEP 2: Workers respond to offers.

(a) If a worker receives no offers, then nothing changes. The worker remains unmatched.

(b) If a worker receives one offer, then the computer uses the message of that worker to decide whether or not to accept the offer. For example, suppose that WORKER A receives an offer from FIRM A.

- If WORKER A included FIRM A in its message, then WORKER A is matched with FIRM A.

- If WORKER A did not include FIRM A in its message, then WORKER A is not matched with FIRM A. In this case, WORKER A "rejects" FIRM A.

(c) If a worker receives two offers, then the computer uses the message of that worker to decide which firm to match that worker to. For example, suppose that WORKER A receives offers from both FIRM A and FIRM B.

- If WORKER A included FIRM A in its message but not FIRM B, then WORKER A is matched with FIRM A. WORKER A rejects the offer from FIRM B.

- If WORKER A included FIRM B in its message but not FIRM A, then WORKER A is matched with FIRM B. WORKER A rejects the offer from FIRM A.

- If WORKER A included both FIRM A and FIRM B in its message, then the computer looks at the relative positions of FIRM A and FIRM B in WORKER A's message. If WORKER A's message ranks FIRM A in a higher position than FIRM B, then WORKER A is matched with FIRM A and WORKER A rejects the offer from FIRM B. If WORKER A's message ranks FIRM B in a higher position than FIRM A, then WORKER A is matched with FIRM B and WORKER A rejects the offer from FIRM A.

STEP 3: Unmatched firms propose new offers.

Each firm that is unmatched makes an offer to the second worker on its list.

STEP 4: Workers respond to offers.

(a) If a worker is unmatched, then refer to STEP 2 to determine how the worker decides among offers.

(b) If a worker is currently matched and receives no new offers, then nothing changes. The worker remains matched to whichever firm they were already matched with.

(c) If a worker is currently matched and receives a new offer, then the computer looks at the relative positions of the current match and the new offer in the worker's message. For example, suppose that WORKER A is currently matched with FIRM A and receives a new offer from FIRM B.

- If WORKER A did not include FIRM B in its message, then WORKER A rejects the offer from FIRM B. WORKER A is still matched with FIRM A.

- If WORKER A included FIRM B in its message, then the computer looks at the relative positions of FIRM A and FIRM B in WORKER A's message. If WORKER A's message ranks FIRM A in a higher position than FIRM B, then WORKER A is still matched with FIRM A and WORKER A rejects the offer from FIRM B. If WORKER A's message ranks FIRM B in a higher position than FIRM A, then WORKER A's previous match with FIRM A is broken and WORKER A is now matched with FIRM B.

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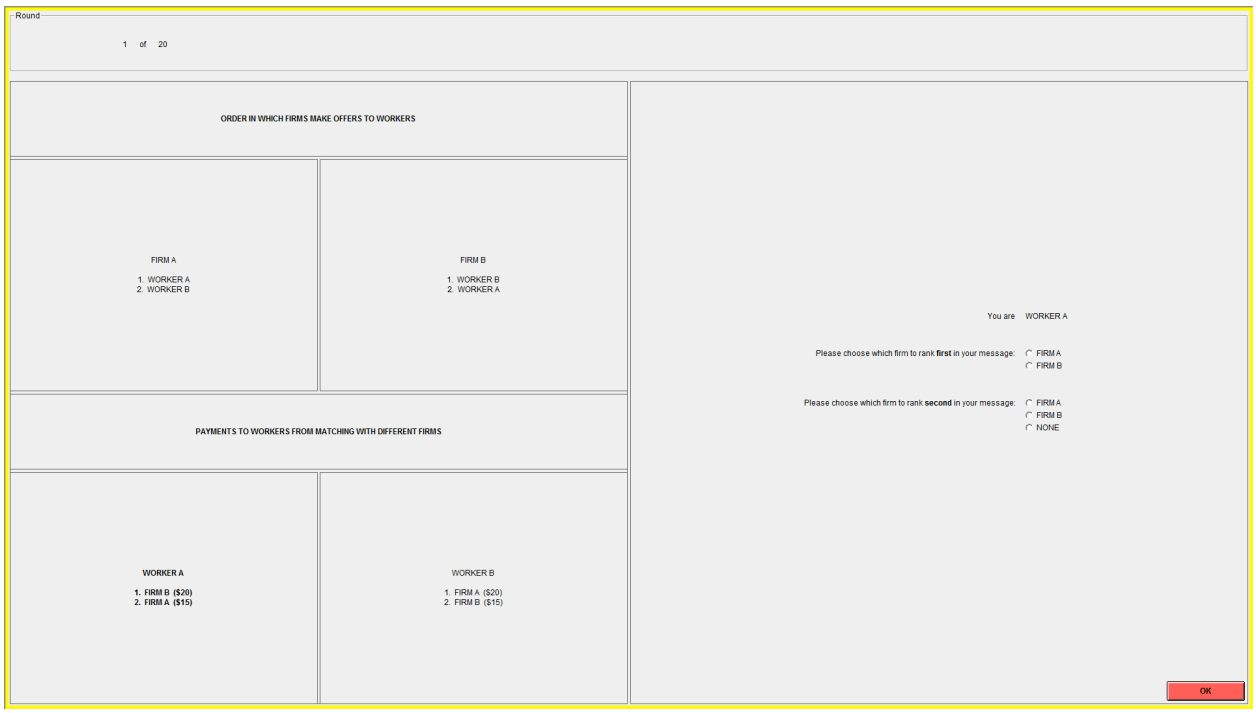
The procedure continues in this fashion until there are no firms left to make offers. This can happen for two reasons: either both firms are already matched or there is an unmatched firm that has already been rejected by both workers. The final matches for a given round are the matches that are in place when the procedure ends. It is only the final matches that count to determine payments. Matches that are made and then broken do not count for payments.

Note that the computer does not consider your list of payments when deciding which firm to match you with. The computer only uses the rankings from your submitted message (and the submitted message of the other worker you are paired with) to calculate the final matching. Once you are matched to a firm, then your list of payments is used to determine how much money you have earned in that round.

The experimental interface is shown below. The bar at the top of the screen indicates which round the players are currently in. The left hand side of the screen displays the lists for the firms and the workers. Your own list of payments will always be in bold. The right hand side of the screen displays your role in the experiment and asks you to submit a message.



At the beginning of the experiment, there will be a brief demonstration of the procedure that the computer uses to determine the final matchings. You will walk through the steps discussed above to better understand how the messages that are submitted affect which firm you are matched with. Again, keep in mind that you will not have to go through a similar process during the actual experiment. In the experiment, the only action that you will take is to submit a message. The computer will go through these steps on its own to determine which firm you are matched with and it will then report that information to you. The purpose of the example is just to show you in detail the steps the computer is taking to determine the final matchings based on the submitted messages.

To summarize, the order of events in the experiment is as follows:

1. You will go through an example demonstrating the procedure that the computer uses to calculate the final matchings.

2. You are randomly assigned to the role of either WORKER A or WORKER B. Your role will remain the same across all 20 rounds.

3. You learn your payments (as well as the payments of the other worker) for all possible matches. You also learn the order in which the firms will make offers to match with the workers. This information will remain the same across all 20 rounds.

4. You are randomly and anonymously paired with a worker in the other role.

5. You submit a message to the computer which is a ranking of the firms. This ranking can contain either one or two firms.

6. The computer uses the submitted messages to calculate the final matches.

7. The computer reports to you which firm you are matched with and how much money you have earned.

8. You will repeat steps 4-7 a total of 19 times (since there are 20 rounds in the experiment).

9. At the end of the experiment, one of the 20 rounds will be randomly selected and you will be paid your earnings for that round (in addition to the $7 show-up payment). All payments will be made privately and in cash.

If you have any questions at this point, please raise your hand. If not, we will begin the experiment shortly.

Good luck!