Facebook Experiment

Second Experiment

You have finished the first section of the survey and will receive a free movie ticket. If you complete the upcoming second section, your movie ticket will be upgraded to a **completely unrestricted one**, and you will also have the chance to earn **up to $10 in cash**. The second section takes about **10 minutes** of your time. All cash earned is paid out as Crimson Cash, through Paypal or by check at the end of the semester.

If you stop now you can still login a second time later on and finish the second section.

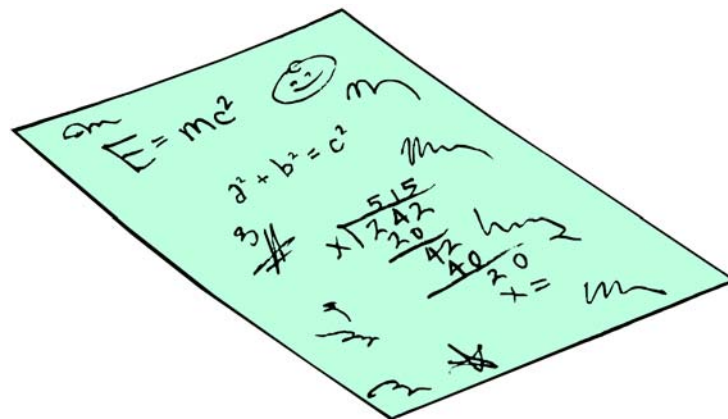| << Previous Page	Next Page >>	**1**	**2**	**3**	**4**	**5**	**6**	**7**

Facebook Experiment

Instructions (Second Experiment)

Quiz

In a little bit, you're going to be taking a short IQ-like quiz. The quiz has 30 questions and you have 4 minutes to complete as many questions as possible.

Your score is the number of correct answers *minus* the number of incorrect answers. For each point you score, we will pay you **25 cents**.

There are 10 different versions of this quiz of varying difficulty, so you won't generally be able to compare your scores with other participants in the study.

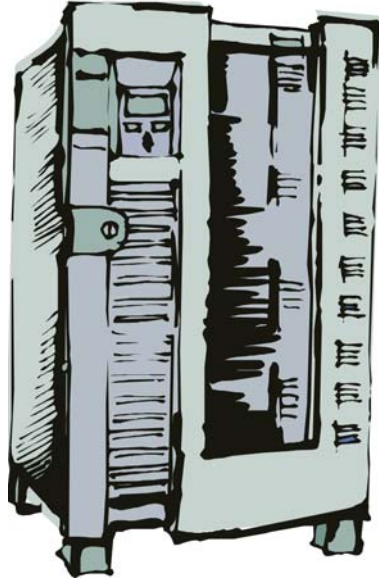| << Previous Page | Next Page >> | **1** | **2** | **3** | **4** | **5** | **6** | **7** |

Facebook Experiment

Instructions (Second Experiment)

Ranks

As quiz scores come in, our mainframe computer will collect all the scores from people taking the quizzes. For each version of the quiz, it will rank the scores of the people who took that quiz and calculate their percentiles. For example, if you score better than 35% of the people who take the same version of the quiz, your percentile rank would be 35.

The mainframe computer will store all the ranks and controls who is allowed to see them.

As part of this study the mainframe will be hosting two contests. The "Top Half contest" gives out prizes for scores that rank in the top half; the "Top Quarter Contest" gives out prizes for scores that rank in the top quartile (the top 25%). You will enter only one of these two contests - which one we cannot tell because the mainframe will randomly assign you to a contest.

Facebook Experiment

Instructions (Second Experiment)

Meet the Robots

Imagine that you live in a world full not only of Harvard students, but also full of robots.

This is Bob the Robot. Bob is going to be taking the quizzes too, along with all his clones -- 100 robots in all. On average the robots are about as good at the quizzes as are Harvard students, but some are much better than others. In fact, they have been programmed so that

- **Bob 1 has a 1% chance of scoring in the top half.**

- **Bob 2 has a 2% chance of scoring in the top half.**

- **...etc...**

- **Bob 100 has a 100% chance of scoring in the top half.**

If the mainframe enters you into the "Top Half contest" one of these robots has been assigned to be *on your team*. But we aren't going to tell you which robot it is -- it could be any of the 100 models.

If the mainframe enters you into the "Top Quarter contest" a robot from a different line will be assigned to your team - one of the new SuperBob line of robots:

- **SuperBob 1 has a 1% chance of being in the top quartile (top 25% of all participants).**

- **SuperBob 2 has a 2% chance of being in the top quartile.**

- **...etc...**
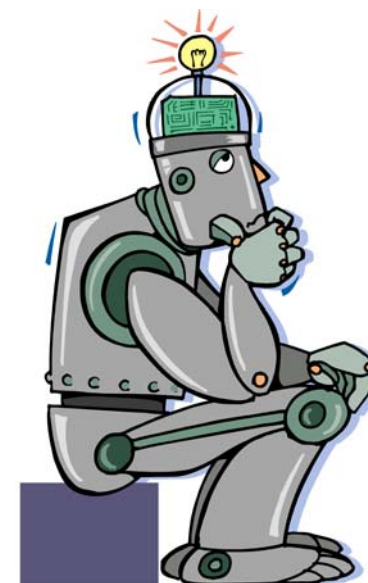
<< Previous Page	Next Page >>	**1**	**2**	**3**	**4**	**5**	**6**	**7**

Facebook Experiment

Instructions (Second Experiment)

Payoffs

Consider the "Top Half contest". If you are entered into this contest we can use either your performance or the performance of the Bob on your team. Whichever score we use, you will earn $3 if that score is *in the top half* of all scores for your quiz.

Similarly, in the "Top Quarter contest" we can use either your score or the score of the SuperBob on your team. Whichever score we use, you will earn $3 if that score is *in the top quarter* of all scores for your quiz.

In both contests you have to help us decide whether to use your score or the robot's score as your team's score. We are going to ask you several times *which robot you think you are most like. That means, which of the 100 Bob clones is as likely as you are to score in the top half, and which of the 100 SuperBob clones is as likely as you to score in the top quartile.* We will randomly choose one of these decisions that you have made. Then, based on that decision and on the contest you are competing in, we will pick whichever member of your team is more likely to score in the top half.

For example, suppose that you say you are as good as Bob 60. If the actual robot on your team is Bob 34, then we would base your payoff in the "Top Half Contest" on your score, since you are more likely to score in the top half. But if the actual robot on your team is Bob 97, then we will use the robot's score, since the robot is more likely to score in the top half. We will do the same thing for the "Top Quarter contest" -- if you are more likely than the SuperBob on your team to score in the top quartile, we will enter your score.

The bottom line is that you are most likely to win $3 if you are as accurate as possible when you estimate your probability of scoring in the top half and your probability of scoring in the top quartile, and pick the corresponding Bob and SuperBob.

<< Previous Page	Next Page >>	**1**	**2**	**3**	**4**	**5**	**6**	**7**

Facebook Experiment

Second Experiment

Which Bob are you?

Before you take the quiz, please tell us for the first time which Bob you think you are most like. Remember, Bob X has an X% chance of scoring in the top half on the quiz, so you are in effect estimating the probability that you will score in the top half. You are most likely to win $3 in the "Top Half Contest" if you are as accurate as possible.

"I am as likely to score in the top half as Bob ___ __ . "

<< Previous Page	Next Page >>	1	2	3	4	5	6	7

Facebook Experiment

Second Experiment

Which Bob are you?

Before you take the quiz, please tell us for the first time which Bob you think you are most like. Remember, Bob X has an X% chance of scoring in the top half on the quiz, so you are in effect estimating the probability that you will score in the top half. You are most likely to win $3 in the "Top Half Contest" if you are as accurate as possible.

"I am as likely to score in the top half as Bob 66 . (who scores in the top half with probability 66%)"

Also, please tell us which SuperBob you think you are most like. Remember, SuperBob X has an X% chance of scoring in the top quartile on the quiz, so you are in effect estimating the probability that you will score in the top quartile. You are most likely to win $3 if you are entered in the "Top Quarter contest" if you are as accurate as possible.

"I am as likely to score in the top quartile (top 25%) as SuperBob 53 . (who scores in the top quartile with probability 53%)"

| << Previous Page | Next Page >> | **1** | **2** | **3** | **4** | **5** | **6** | **7** |

Facebook Experiment

Second Experiment

Quiz starts now ...

When you press "Next Page" the quiz will start and you have four minutes to answer as many questions as you can. There are up to 30 questions. Your score is the number of correct answers *minus* the number of incorrect answers. We will pay you **25 cents** for each point you score, (and you cannot lose money).

If you close this browser window now you can login in and get to this page by simply following the link in the invitation email we sent.

Good luck!

| << Previous Page | Next Page >> | **1** | **2** | **3** | **4** | **5** | **6** | **7** |

Facebook Experiment
Quiz

In the following screens you will be asked up to 30 questions. Answer as many questions as possible within the next 4 minutes.

Question 1: Which one of the five choices makes the best comparison? LIVED is to DEVIL as 6323 is to:

○ 2336

○ 6232

○ 3236

○ 3326

○ 6332

Next Question >>	**1**	**2**	**3**	**4**	**5**	**6**	**7**

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30   **Seconds left: 234**

Facebook Experiment

Question 2: Which one of these five is least like the other four?

- ○ Horse
- ○ Kangaroo
- ○ Cow
- ○ Deer
- ○ Donkey

<< Previous Question	Next Question >>	**1**	**2**	**3**	**4**	**5**	**6**	**7**

Seconds left: 205

Facebook Experiment

Question 7: A fallacious argument is:

- ○ Disturbing
- ○ Valid
- ○ False
- ○ Necessary

| << Previous Question | Next Question >> | **1** | **2** | **3** | **4** | **5** | **6** | **7** |

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30   **Seconds left: 105**

Facebook Experiment

Second Experiment

Reevalute your probability of being in the top half and top quarter

Now that you have taken the quiz, you may have a better idea where you are likely to rank. Please think again about which Bob you are most like. Remember, if you are most like Bob X this means that you have an X% chance of scoring in the top half. You are most likely to win $3 in the "Top Half Contest" if you are as accurate as possible.

"I am as likely to score in the top half as Bob ___ . "

Next Page >>	1	2	3	4	5	6	7

Facebook Experiment

Second Experiment

Reevalute your probability of being in the top half and top quarter

Now that you have taken the quiz, you may have a better idea where you are likely to rank. Please think again about which Bob you are most like. Remember, if you are most like Bob X this means that you have an X% chance of scoring in the top half. You are most likely to win $3 in the "Top Half Contest" if you are as accurate as possible.

"I am as likely to score in the top half as Bob 60 .(who scores in the top half with probability 60%)"

Also, please tell us which SuperBob you think you are most like. Remember, SuperBob X has an X% chance of scoring in the top quartile on the quiz, so you are in effect estimating the probability that you will score in the top quartile. You are most likely to win $3 if you are entered in the "Top Quarter contest" if you are as accurate as possible.

"I am as likely to score in the top quartile (top 25%) as SuperBob 33 . (who scores in the top quartile with probability 33%)"

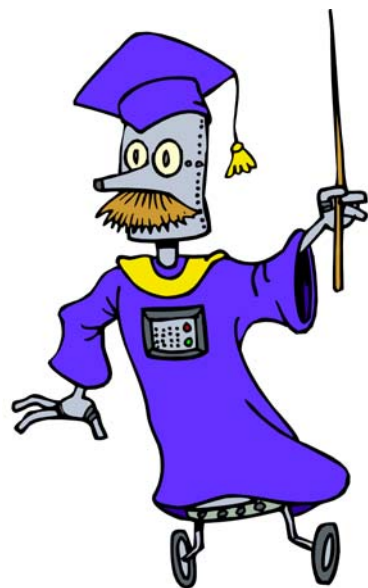| Next Page >>	1	2	3	4	5	6	7

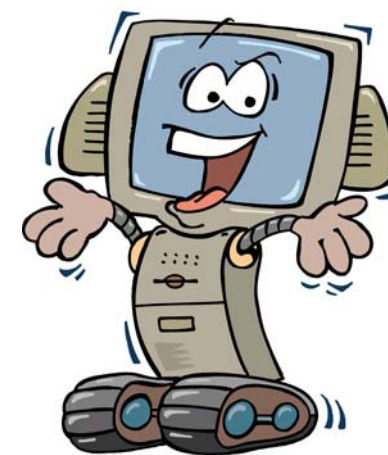# Facebook Experiment

Second Experiment

Robots Gather Feedback

Now that you have taken the quiz and given us some information about how well you think you did, we are going to give you some feedback on your performance. Specifically, we are going to give you a series of four reports that say "top" or "bottom". The reports are meant to indicate whether your performance was in the top or bottom half, but *unfortunately they are not always accurate*.

The problem is that the information about your rank is stored on the mainframe, and we had to hire two robots to retrieve the information. The robots we hired are named Joke Fred and Wise Fred. Wise Fred is completely reliable and always retrieves the right report. Unfortunately, Joke Fred is completely unreliable. If a report was retrieved by Joke Fred it is equally likely to say "top" or "bottom" no matter what your real rank was.

Each of the four reports you will get is equally likely to have been retrieved by Wise Fred or by Joke Fred. This means that there is a 75% chance that each report is accurate, but a 25% chance that it is inaccurate.

After each report we will again ask which Bob you think you are most like, i.e. what you think is the probability that you scored in the top half.

Wise Fred

Joke Fred

Next Page >> | **1** | **2** | **3** | **4** | **5** | **6** | **7**

Facebook Experiment

Second Experiment

Feedback #1

Your first report says BOTTOM.

You last decided that you are most like Bob 60.

Given this feedback, which Bob do you think you are most like? Remember, there is a 50% chance that Wise Fred retrieved this report and it is accurate, but there is also a 50% chance that Joke Fred retrieved it and is completely random. Again, you are most likely to win $3 in the "Top Half Contest" if you answer as accurately as possible.

"I am as likely to score in the top half as Bob 55 **.(who scores in the top half with probability 55%)"**

<< Previous Page	Next Page >>	**1**	**2**	**3**	**4**	**5**	**6**	**7**

Facebook Experiment

Second Experiment

Feedback #2

Your second report says TOP.

Your first report said BOTTOM.

You last decided that you are most like Bob 55.

Given all the feedback you have received so far, which Bob do you think you are most like? Remember, for each report there is a 50% chance that Wise Fred retrieved that report and it is accurate, but there is also a 50% chance that Joke Fred retrieved it and is completely random. Again, you are most likely to win $3 in the "Top Half Contest" if you answer as accurately as possible.

"I am as likely to score in the top half as Bob ____ . "

Next Page >>	1	2	3	4	5	6	7

Facebook Experiment

Second Experiment

Feedback #3

Your third report says TOP.

Your first two reports said BOTTOM, TOP.

You last decided that you are most like Bob 61.

Given all the feedback you have received so far, which Bob do you think you are most like? Remember, for each report there is a 50% chance that Wise Fred retrieved that report and it is accurate, but there is also a 50% chance that Joke Fred retrieved it and is completely random. Again, you are most likely to win $3 in the "Top Half Contest" if you answer as accurately as possible.

"I am as likely to score in the top half as Bob ____ . "

Next Page >>	1	2	3	4	5	6	7

Facebook Experiment

Second Experiment

Feedback #4

Your fourth (and final) report says TOP.

Your first three reports said BOTTOM, TOP, TOP.

You last decided that you are most like Bob 80.

Given all the feedback you have received so far, which Bob do you think you are most like? Remember, for each report there is a 50% chance that Wise Fred retrieved that report and it is accurate, but there is also a 50% chance that Joke Fred retrieved it and is completely random. Again, you are most likely to win $3 in the "Top Half Contest" if you answer as accurately as possible.

"I am as likely to score in the top half as Bob ____ . "

Next Page >>	1	2	3	4	5	6	7

Facebook Experiment

Second Experiment

Buying Information

You are almost done! Before you finish, you have an opportunity to win an extra $2.

Imagine that there is a safe deposit box with your name on it hidden deep in the basement of Littauer. There is $2 in each box. To get the money, you need to hire a robot to go open the box and retrieve the money. But to unlock the safe deposit box, the robot will first need to visit the mainframe and find out whether you scored in the top half or bottom half; the robot needs this information to unlock your box.

The robots available for hire are all reliable and will open the box and bring you the money it contains. But the robots also differ from each other in two ways. First, some robots are more precise than others:

- **Silent Joe only tells you if he finds the money but does not tell you what he learned from the mainframe about your rank.**

- **Talking Joe looks for the money, but also tells you if you were in the top or bottom half, regardless of whether or not he finds money.**

- **Precise Joe is a stickler for accuracy and will find out your exact rank from the mainframe. He will tell you not only whether he finds any money, but also your precise rank among all students who took the same quiz as you.**

The second way in which the robots differ is how they tell you about your rank. Of course, Silent Joe never says anything. On the other hand, Talking and Precise Joe can either send an email to you alone *or* they can post the information they get about your rank to an online hall of fame and send a link to you and to your friends (the friends you named in the trivia game last fall). In this case you and your friends can all see your performance and compare it to others.

| Next Page >> | **1** | **2** | **3** | **4** | **5** | **6** | **7** |

Facebook Experiment

Second Experiment

Buying Information

To summarize, there are five possible robots:

Silent Joe
- brings you $2
- tells you nothing about your rank.

Talking Joe
- brings you $2
- sends you an email to inform you whether your score was in the *top or bottom half*

Talking "Hall of Fame" Joe
- brings you $2
- invites you and your friends to view and compare your *top or bottom rank* in your group's hall of fame.

Precise Joe
- brings you $2
- sends you an email about your *exact rank (1-100)*.

Precise "Hall of Fame" Joe
- brings you $2
- invites you and your friends to view and compare your *exact rank* in your group's hall of fame.

| << Previous Page | Next Page >> | **1** | **2** | **3** | **4** | **5** | **6** | **7** |

Facebook Experiment

Second Experiment

Buying Information

On the next page you can hire the services of ONE of the five robots. We don't know which one is available to help you find out about your score and your $2 - the computer will choose one and only one of them when the time comes. The computer will also offer the robot at a price which is random and drawn between **$0 and $4**.

Please tell us - for each robot - **the highest amount you would be willing to pay to hire that robot**. This amount indicates the value of the robot to you - if the robot is worth, say, $2 then you should be prepared to pay up to $2 but not more than that.

For example, if you say that you willing to pay up to $2 for Silent Bob and the computer chooses Silent Bob at a price of $1 then you will hire Silent Bob at $1. But if the computer draws a price of $3 for Silent Bob then this price exceeeds your value for Silent Bob and you will not hire a robot.

NOTE: If you hire a robot then the price of the robot will be subtracted from your earnings and the $2 in the safety deposit box will be added to your earnings. If you don't ever want to hire a specific robot then simply bid $0.

<< Previous Page	Next Page >>	**1**	**2**	**3**	**4**	**5**	**6**	**7**

Facebook Experiment

Second Experiment

Buying Information

Silent Joe is worth paying up to $ ___ ▢ .

- brings you $2
- tells you nothing about your rank.

Talking Joe is worth paying up to $ ___ ▢ .

- brings you $2
- sends you an email to inform you whether your score was in the *top or bottom half*

Talking "Hall of Fame" Joe is worth paying up to $ ___ ▢ .

- brings you $2
- invites you and your friends to view and compare your *top or bottom rank* in your group's hall of fame.

Precise Joe is worth paying up to $ ___ ▢ .

- brings you $2
- sends you an email about your *exact rank (1-100).*

Precise "Hall of Fame" Joe is worth paying up to $ ___ ▢ .

- brings you $2
- invites you and your friends to view and compare your *exact rank* in your group's hall of fame.

| << Previous Page | Next Page >> | **1** | **2** | **3** | **4** | **5** | **6** | **7** |

Facebook Experiment

Debriefing

What do you think?

Thank you! We would be grateful for any quick comments on the first and second part of the study. Did you feel comfortable with instructions? Were you confused? If you have suggestions on what to do better we would be very grateful! Thanks in advance!

Feedback on first experiment:

Feedback on second experiment:

Next Page >> | **1** | **2** | **3** | **4** | **5** | **6** | **7**
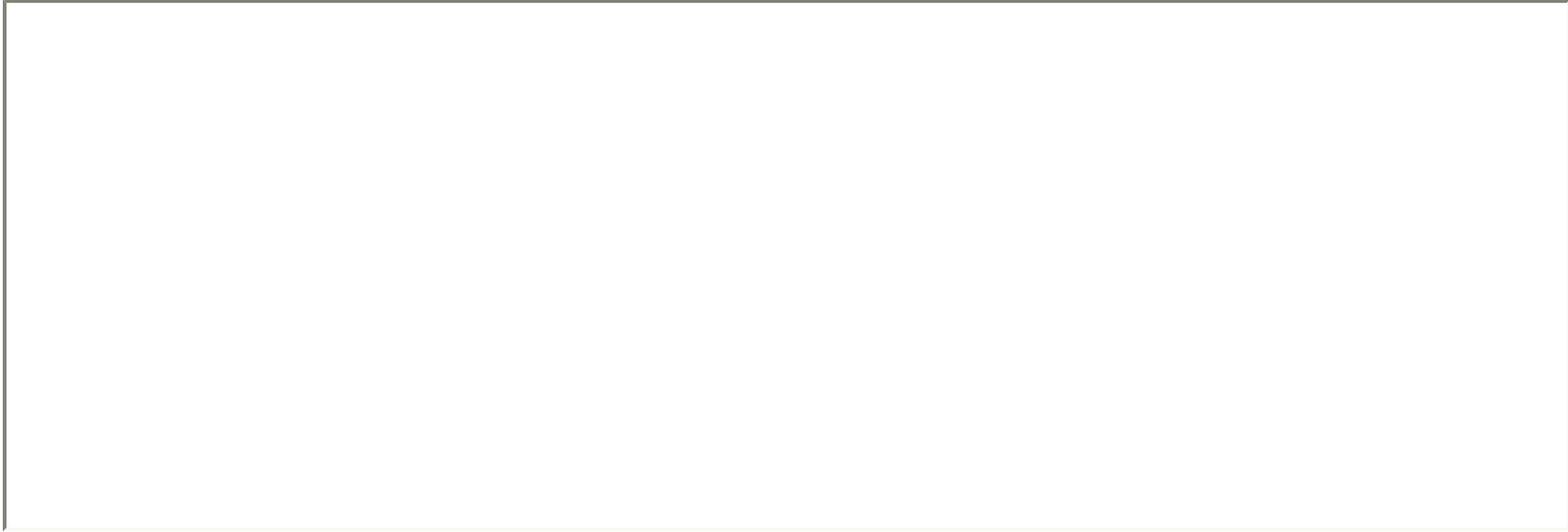
Facebook Experiment

This part of the study is finished.

Thank you for participating. You can pick up your unrestricted movie ticket at the Science Center starting the week of April 25 (signs will be posted). Cash earnings will be calculated and paid at the end of the semester as Crimson Cash, Paypal or by check.

Have a nice day!

1	2	3	4	5	6	7