

Part 1 Instructions

Please follow along as I read through the instructions. If you have a question, please raise your hand and I will come to answer your question privately.

Each of you will earn £2 for participating in today's session. You will have the opportunity to earn an additional amount of money which will depend on a decision you will make and on chance. You will receive your earnings before you leave today.

This experiment involves two coloured game boards: a blue game board and a yellow game board. These game boards have been set up on your computer. Towards the end of the experiment, you will make a decision that involves one of the game boards.

This experiment has two parts. Part 1 consists of ten rounds, while Part 2 has one round. Your earnings will depend on the outcome of your decision in Part 2.

In Part 1, the ten rounds are samples that will give you the opportunity to learn as much as you can about the game boards. Each game board contains 100 boxes numbered from 1 to 100. Each box is either a winning box or a losing box. A winning box has a value to you of £20, while a losing box has a value to you of £0.

At the start of the experiment, you will not know the values of the boxes. You will not even know how many winning boxes there are on each game board. Each game board has either ten or thirty winning boxes.

In each of the ten rounds, the value of a different box will be revealed. At the end of Part 1, you will have seen the value of ten boxes.

We will now fix how many winning boxes there are on each game board, and what those box numbers are.

Here is a bingo cage containing 100 balls numbered from 1 to 100. Before today's experiment, we picked forty balls from this bingo cage. We put thirty of these numbers into one envelope and the other ten numbers into a different envelope.

Here are the two envelopes. I will now put the envelopes in this bag.

I will now ask one of you to come forward. Please pick one envelope from the bag but do not open the envelope. Please write "blue and yellow" on that envelope. Now, take the other envelope from the bag and write "unused" on that envelope.

The numbers inside this envelope marked "blue and yellow" are the numbers of the winning boxes for both the blue and yellow game boards. This means that the winning boxes are the same for the two game boards. Depending on which envelope was picked, each game board may have ten winning boxes, or it may have thirty winning boxes.

My assistant will open the envelope and then programme the winning boxes into the game boards. I will post the envelopes on the wall after we finish reading the instructions. You are welcome to inspect the envelopes at the end of the experiment.

I will now describe the computer screens you will encounter in each round.

At the start of each round, your computer will display either the blue game board or the yellow game board.

Look at the sample screens on the next page.

[continued over the page]

Sample Round No. 1
The winning boxes depend on the envelope drawn earlier.
The following sets of winning boxes are equally likely.

30 out of 100

30 out of 100

10 out of 100

10 out of 100

I think the chance that this game board will reveal a winning box in this round is

very lowvery high

I AM PLAYING THE BLUE GAME BOARD

1	11	21	31	41	51	61	71	81	91
2	12	22	32	42	52	62	72	82	92
3	13	23	33	43	53	63	73	83	93
4	14	24	34	44	54	64	74	84	94
5	15	25	35	45	55	65	75	85	95
6	16	26	36	46	56	66	76	86	96
7	17	27	37	47	57	67	77	87	97
8	18	28	38	48	58	68	78	88	98
9	19	29	39	49	59	69	79	89	99
10	20	30	40	50	60	70	80	90	100

Sample Round No. 1
The winning boxes depend on the envelope drawn earlier.
The following sets of winning boxes are equally likely.

30 out of 100

30 out of 100

10 out of 100

10 out of 100

I think the chance that this game board will reveal a winning box in this round is

very lowvery high

I AM PLAYING THE YELLOW GAME BOARD

1	11	21	31	41	51	61	71	81	91
2	12	22	32	42	52	62	72	82	92
3	13	23	33	43	53	63	73	83	93
4	14	24	34	44	54	64	74	84	94
5	15	25	35	45	55	65	75	85	95
6	16	26	36	46	56	66	76	86	96
7	17	27	37	47	57	67	77	87	97
8	18	28	38	48	58	68	78	88	98
9	19	29	39	49	59	69	79	89	99
10	20	30	40	50	60	70	80	90	100

The top screen is the screen you will see if you are playing the blue game board. You will always play the blue game board on the left side of your screen. The bottom screen is the screen you will see if you are playing the yellow game board. You will always play the yellow game board on the right side of your screen.

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Sample Round No. 1
The winning boxes depend on the envelope drawn earlier.
The following sets of winning boxes are equally likely.

30 out of 100

30 out of 100

10 out of 100

10 out of 100

Here is a picture of the top portion of the sample screens shown on the previous page. It shows the possible sets of winning boxes on the blue and yellow game boards. Remember that the set of winning boxes depends on the contents of the envelope marked “blue and yellow”.

On the top-left of the sample screen is the case where both game boards have thirty winning boxes. This possibility occurs if the envelope that was marked “blue and yellow” contains thirty winning numbers. On the top-right of the screen is the case where both game boards have ten winning boxes. This other possibility occurs if the envelope that was marked “blue and yellow” has ten winning numbers. These two possibilities are equally likely.

In each round, you will indicate on your screen what you think is the chance that the game board will reveal a winning box in that round. You will then click on the button labelled confirm. A sample of that section on the screen is highlighted on the game board below.

Sample Round No. 1
The winning boxes depend on the envelope drawn earlier.
The following sets of winning boxes are equally likely.

30 out of 100 30 out of 100 10 out of 100 10 out of 100

I think the chance that this game board will reveal a winning box in this round is

very low very high

confirm

I AM PLAYING THE YELLOW GAME BOARD

1	11	21	31	41	51	61	71	81	91
2	12	22	32	42	52	62	72	82	92
3	13	23	33	43	53	63	73	83	93
4	14	24	34	44	54	64	74	84	94
5	15	25	35	45	55	65	75	85	95
6	16	26	36	46	56	66	76	86	96
7	17	27	37	47	57	67	77	87	97
8	18	28	38	48	58	68	78	88	98
9	19	29	39	49	59	69	79	89	99
10	20	30	40	50	60	70	80	90	100

I will then draw a ball from the bingo cage. I will announce the box number printed on the ball and you will click on that box to open the box and reveal whether it is a winning box or a losing box. A winning box is shaded green and displays £20, while a losing box is shaded red and displays £0.

[continued over the page]

Let us consider two examples: a case with a winning box and a case with a losing box. Below is a sample screen you will see if the announced box number is a winning box.

Sample Round No. 2

The winning boxes depend on the envelope drawn earlier.

The following sets of winning boxes are equally likely.

30 out of 100

30 out of 100

10 out of 100

10 out of 100

I thought the chance that this game board would reveal a winning box in this round was

very lowvery high

I AM PLAYING THE BLUE GAME BOARD

£20	11	21	31	41	51	61	71	81	91
2	12	22	32	42	52	62	72	82	92
3	13	23	33	43	53	63	73	83	93
4	14	24	34	44	54	64	74	84	94
5	15	25	35	45	55	65	75	85	95
6	16	26	36	46	56	66	76	86	96
7	17	27	37	47	57	67	77	87	97
8	18	28	38	48	58	68	78	88	98
9	19	29	39	49	59	69	79	89	99
10	20	30	40	50	60	70	80	90	100

Suppose that we had revealed the value of box number 5 in sample round number 1. We are in sample round number 2 where you are playing the blue game board.

I announce that the box number for this round is “1”. You click on that box to open the box and reveal whether it is a winning box or a losing box. Since box number 1 is a winning box in this example, it displays £20 and it is shaded green.

Notice that box number 5 is shaded grey. The boxes with values revealed in the previous rounds are shaded grey. These boxes will not be opened again in the remaining rounds in Part 1.

Your computer will then show a screen that summarises what you learned about the game boards in that round. A sample of that screen is shown on the next page.

[continued over the page]

Sample Round No. 2
The winning boxes depend on the envelope drawn earlier.
The following sets of winning boxes are equally likely.

30 out of 100
30 out of 100
10 out of 100
10 out of 100

I thought the chance that this game board would reveal a winning box in this round was

very lowvery high

I AM PLAYING THE BLUE GAME BOARD

£20	11	21	31	41	51	61	71	81	91
2	12	22	32	42	52	62	72	82	92
3	13	23	33	43	53	63	73	83	93
4	14	24	34	44	54	64	74	84	94
5	15	25	35	45	55	65	75	85	95
6	16	26	36	46	56	66	76	86	96
7	17	27	37	47	57	67	77	87	97
8	18	28	38	48	58	68	78	88	98
9	19	29	39	49	59	69	79	89	99
10	20	30	40	50	60	70	80	90	100

1 is a winning box on the blue game board

1 is a winning box on the yellow game board

The left side of the screen reminds you that you just played the blue game board in sample round number 2. It also reminds you that box number 1 on the blue game board is a winning box. Because box number 1 is a winning box, it is shaded green and it displays £20 on the blue game board.

Now look at the right side of the screen. Because the winning boxes are the same for the two game boards, box number 1 is also a winning box on the yellow game board.

[continued over the page]

Now suppose instead that box number 1 is a losing box on the blue game board. Below is a sample screen you will see in this situation.

Sample Round No. 2

The winning boxes depend on the envelope drawn earlier.

The following sets of winning boxes are equally likely.

30 out of 100

30 out of 100

10 out of 100

10 out of 100

I thought the chance that this game board would reveal a winning box in this round was

very lowvery high

I AM PLAYING THE BLUE GAME BOARD

£0	11	21	31	41	51	61	71	81	91
2	12	22	32	42	52	62	72	82	92
3	13	23	33	43	53	63	73	83	93
4	14	24	34	44	54	64	74	84	94
5	15	25	35	45	55	65	75	85	95
6	16	26	36	46	56	66	76	86	96
7	17	27	37	47	57	67	77	87	97
8	18	28	38	48	58	68	78	88	98
9	19	29	39	49	59	69	79	89	99
10	20	30	40	50	60	70	80	90	100

I announce that the box number for this round is “1”. You click on that box to open the box and reveal whether it is a winning box or a losing box. Since box number 1 is a losing box in this example, it displays £0 and it is shaded red.

Your computer will then show a screen that summarises what you learned about the game boards in that round. A sample of that screen is shown on the next page.

[continued over the page]

Sample Round No. 2
The winning boxes depend on the envelope drawn earlier.
The following sets of winning boxes are equally likely.

30 out of 100

30 out of 100

10 out of 100

10 out of 100

I thought the chance that this game board would reveal a winning box in this round was

very low

0
0
0
0
0
0
0
0
0
0

very high

I AM PLAYING THE BLUE GAME BOARD

£0	11	21	31	41	51	61	71	81	91
2	12	22	32	42	52	62	72	82	92
3	13	23	33	43	53	63	73	83	93
4	14	24	34	44	54	64	74	84	94
5	15	25	35	45	55	65	75	85	95
6	16	26	36	46	56	66	76	86	96
7	17	27	37	47	57	67	77	87	97
8	18	28	38	48	58	68	78	88	98
9	19	29	39	49	59	69	79	89	99
10	20	30	40	50	60	70	80	90	100

1 is a losing box on the blue game board

1 is a losing box on the yellow game board

The left side of the sample screen reminds you that box number 1 is a losing box on the blue game board, therefore, it is shaded red and it displays £0.

Now look at the right side of the sample screen. Because the winning boxes are the same for the two game boards, box number 1 is also a losing box on the yellow game board.

Part 2 has one round where each of you will be given one play of either the blue game board or the yellow game board. The game board will have the same set of winning boxes programmed into it as in Part 1.

You will then have the opportunity to earn an amount of money, in addition to your participation fee of £2. The additional amount of money you will earn will depend on the outcome of your decision in Part 2.

At the beginning of Part 2, I will put back all balls drawn in Part 1 so that it is possible to draw a box number that was opened in Part 1.

I will describe Part 2 in more detail after we complete Part 1.

Are there any questions?

Part 2 Instructions

We have completed Part 1. I will now describe the task in Part 2.

Part 2 has one round where each of you will play either the blue game board or the yellow game board. Each coloured game board has the same set of winning boxes programmed into it as in Part 1. Recall that the set of winning boxes on the blue and yellow game boards are the box numbers listed on the envelope marked “blue and yellow”.

Your game board gives you the chance to earn money either by keeping your game board and receiving the earnings from your play of it, or exchanging your game board for an amount of money.

Before we begin, my assistant will now put back in the bingo cage all balls drawn in Part 1.

This bingo cage now contains 100 balls.

Each of you will have an individual draw from this bingo cage. The ball I draw will determine the box number to be opened on your game board. Because all the balls selected during Part 1 have been returned in the bingo cage, it is possible for me to draw any box number from 1 to 100, including the boxes that were opened in Part 1.

Please click on the button labelled continue.

Your computer screen now displays your game board. Indicate what you think is the chance that your game board will reveal a winning box when we conduct your individual draw. After you have done so, click on the button labelled confirm.

I am going to offer a price in exchange for your game board.

Here is a bag containing thirty-five envelopes. Each envelope contains one of thirty-five possible prices ranging from 20p to £20. Each price is listed on a decision form that will be shown on your computer screen.

I will now ask one of you to draw one envelope from this bag but do not open the envelope. The price in the envelope will be the price I will offer in exchange for your game board. We will call this the offer price.

My assistant will post the envelope on the wall. I will open the envelope only after everyone has submitted their decision form.

Look again at your computer screen. Your decision form gives you the opportunity to exchange the result of your play of your game board for the offer price posted on the wall. Listed on the decision form are all the possible offer prices that may be in the envelope. Think of each price individually. At each price, carefully consider whether you prefer to keep your game board and receive the earnings from your play of it, or you prefer to exchange your game board and receive that offer price. For each price, click on the appropriate button to indicate which you prefer.

After everyone has submitted their decision form, I will open the envelope posted on the wall to reveal the offer price. I will announce the offer price and my assistant will input the offer price into the computer. Your computer will then remind you of your decision at that offer price.

I will then go to each of you for your individual draw. I will draw one ball from the bingo cage and I will show you the box number printed on the ball. You will then click on that box as you did in Part 1 to open the box and reveal the value of that box to you.

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I will then return the ball before conducting the individual draw for the next participant. All 100 balls will be in the bingo cage when we conduct your individual draw.

If you decided to keep your game board at the offer price, you will receive the earnings from your play of your game board plus your participation fee. If you decided to exchange your game board at the offer price, your earnings will be the offer price plus your participation fee.

Before we begin Part 2, are there any questions?

Part 1 Instructions

Please follow along as I read through the instructions. If you have a question, please raise your hand and I will come to answer your question privately.

Each of you will earn £2 for participating in today's session. You will have the opportunity to earn an additional amount of money which will depend on a decision you will make and on chance. You will receive your earnings before you leave today.

This experiment involves two coloured game boards: a blue game board and a yellow game board. These game boards have been set up on your computer. Towards the end of the experiment, you will make a decision that involves one of the game boards.

This experiment has two parts. Part 1 consists of ten rounds, while Part 2 has one round. Your earnings will depend on the outcome of your decision in Part 2.

In Part 1, the ten rounds are samples that will give you the opportunity to learn as much as you can about the game boards. Each game board contains 100 boxes numbered from 1 to 100. Each box is either a winning box or a losing box. A winning box has a value to you of £20, while a losing box has a value to you of £0.

At the start of the experiment, you will not know the values of the boxes. You will not even know how many winning boxes there are on each game board. Each game board has either ten or thirty winning boxes.

In each of the ten rounds, the value of a different box will be revealed. At the end of Part 1, you will have seen the value of ten boxes.

We will now fix how many winning boxes there are on each game board, and what those box numbers are.

Here is a bingo cage containing 100 balls numbered from 1 to 100. Before today's experiment, we picked forty balls from this bingo cage. We put thirty of these numbers into one envelope and the other ten numbers into a different envelope.

Here are the two envelopes. I will now put the envelopes in this bag.

I will now ask one of you to come forward. Please pick one envelope from the bag but do not open the envelope. Please write "blue" on that envelope. Now, take the other envelope from the bag and write "yellow" on that envelope.

The numbers inside this envelope marked "blue" are the numbers of the winning boxes for the blue game board, while the numbers inside this envelope marked "yellow" are the numbers of the winning boxes for the yellow game board. This means that the winning boxes are different for the two game boards. Depending on which envelopes were picked, one game board will have ten winning boxes, and the other game board will have thirty winning boxes.

My assistant will open the envelope and then programme the winning boxes into the game boards. I will post the envelopes on the wall after we finish reading the instructions. You are welcome to inspect the envelopes at the end of the experiment.

I will now describe the computer screens you will encounter in each round.

At the start of each round, your computer will display either the blue game board or the yellow game board.

Look at the sample screens on the next page.

[continued over the page]

Sample Round No. 1

The winning boxes depend on the envelopes drawn earlier.
The following sets of winning boxes are equally likely.

30 out of 100

10 out of 100

10 out of 100

30 out of 100

I think the chance that this game board will reveal a winning box in this round is

very low

☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

very high

I AM PLAYING THE BLUE GAME BOARD

1	11	21	31	41	51	61	71	81	91
2	12	22	32	42	52	62	72	82	92
3	13	23	33	43	53	63	73	83	93
4	14	24	34	44	54	64	74	84	94
5	15	25	35	45	55	65	75	85	95
6	16	26	36	46	56	66	76	86	96
7	17	27	37	47	57	67	77	87	97
8	18	28	38	48	58	68	78	88	98
9	19	29	39	49	59	69	79	89	99
10	20	30	40	50	60	70	80	90	100

Sample Round No. 1

The winning boxes depend on the envelopes drawn earlier.
The following sets of winning boxes are equally likely.

30 out of 100

10 out of 100

10 out of 100

30 out of 100

I think the chance that this game board will reveal a winning box in this round is

very low

☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

very high

I AM PLAYING THE YELLOW GAME BOARD

1	11	21	31	41	51	61	71	81	91
2	12	22	32	42	52	62	72	82	92
3	13	23	33	43	53	63	73	83	93
4	14	24	34	44	54	64	74	84	94
5	15	25	35	45	55	65	75	85	95
6	16	26	36	46	56	66	76	86	96
7	17	27	37	47	57	67	77	87	97
8	18	28	38	48	58	68	78	88	98
9	19	29	39	49	59	69	79	89	99
10	20	30	40	50	60	70	80	90	100

The top screen is the screen you will see if you are playing the blue game board. You will always play the blue game board on the left side of your screen. The bottom screen is the screen you will see if you are playing the yellow game board. You will always play the yellow game board on the right side of your screen.

[continued over the page]

Sample Round No. 1
The winning boxes depend on the envelopes drawn earlier.
The following sets of winning boxes are equally likely.

30 out of 100

10 out of 100

10 out of 100

30 out of 100

Here is a picture of the top portion of the sample screens shown on the previous page. It shows the possible sets of winning boxes on the blue and yellow game boards. Remember that the sets of winning boxes depend on the contents of the envelopes marked “blue” and marked “yellow”.

On the top-left of the screen is the case where the blue game board has thirty winning boxes and the yellow game board has ten winning boxes. This possibility occurs if the envelope that was marked “blue” contains thirty winning numbers and the envelope marked “yellow” has ten winning numbers. On the top-right of the screen is the case where the blue game board has ten winning boxes and the yellow game board has thirty winning boxes. This other possibility occurs if the envelope that was marked “blue” has ten winning numbers and the envelope marked “yellow” has thirty winning numbers. These two possibilities are equally likely.

In each round, you will indicate on your screen what you think is the chance that the game board will reveal a winning box in that round. You will then click on the button labelled confirm. A sample of that section on the screen is highlighted on the game board below.

Sample Round No. 1
The winning boxes depend on the envelopes drawn earlier.
The following sets of winning boxes are equally likely.

30 out of 100 10 out of 100 10 out of 100 30 out of 100

I think the chance that this game board will reveal a winning box in this round is

very low very high

confirm

I AM PLAYING THE YELLOW GAME BOARD

1	11	21	31	41	51	61	71	81	91
2	12	22	32	42	52	62	72	82	92
3	13	23	33	43	53	63	73	83	93
4	14	24	34	44	54	64	74	84	94
5	15	25	35	45	55	65	75	85	95
6	16	26	36	46	56	66	76	86	96
7	17	27	37	47	57	67	77	87	97
8	18	28	38	48	58	68	78	88	98
9	19	29	39	49	59	69	79	89	99
10	20	30	40	50	60	70	80	90	100

I will then draw a ball from the bingo cage. I will announce the box number printed on the ball and you will click on that box to open the box and reveal whether it is a winning box or a losing box. A winning box is shaded green and displays £20, while a losing box is shaded red and displays £0.

[continued over the page]

Let us consider two examples: a case with a winning box and a case with a losing box. Below is a sample screen you will see if the announced box number is a winning box.

Sample Round No. 2

The winning boxes depend on the envelopes drawn earlier.

The following sets of winning boxes are equally likely.

30 out of 100

10 out of 100

10 out of 100

30 out of 100

I thought the chance that this game board would reveal a winning box in this round was

very lowvery high

I AM PLAYING THE BLUE GAME BOARD

£20	11	21	31	41	51	61	71	81	91
2	12	22	32	42	52	62	72	82	92
3	13	23	33	43	53	63	73	83	93
4	14	24	34	44	54	64	74	84	94
5	15	25	35	45	55	65	75	85	95
6	16	26	36	46	56	66	76	86	96
7	17	27	37	47	57	67	77	87	97
8	18	28	38	48	58	68	78	88	98
9	19	29	39	49	59	69	79	89	99
10	20	30	40	50	60	70	80	90	100

Suppose that we had revealed the value of box number 5 in sample round number 1. We are in sample round number 2 where you are playing the blue game board.

I announce that the box number for this round is “1”. You click on that box to open the box and reveal whether it is a winning box or a losing box. Since box number 1 is a winning box in this example, it displays £20 and it is shaded green.

Notice that box number 5 is shaded grey. The boxes with values revealed in the previous rounds are shaded grey. These boxes will not be opened again in the remaining rounds in Part 1.

Your computer will then show a screen that summarises what you learned about the game boards in that round. A sample of that screen is shown on the next page.

[continued over the page]

Sample Round No. 2

The winning boxes depend on the envelopes drawn earlier.

The following sets of winning boxes are equally likely.

30 out of 100

10 out of 100

10 out of 100

30 out of 100

I thought the chance that this game board would reveal a winning box in this round was

very low

very high

I AM PLAYING THE BLUE GAME BOARD

£20	11	21	31	41	51	61	71	81	91
2	12	22	32	42	52	62	72	82	92
3	13	23	33	43	53	63	73	83	93
4	14	24	34	44	54	64	74	84	94
5	15	25	35	45	55	65	75	85	95
6	16	26	36	46	56	66	76	86	96
7	17	27	37	47	57	67	77	87	97
8	18	28	38	48	58	68	78	88	98
9	19	29	39	49	59	69	79	89	99
10	20	30	40	50	60	70	80	90	100

1 is a winning box on the blue game board

1 is a losing box on the yellow game board

The left side of the screen reminds you that you just played the blue game board in sample round number 2. It also reminds you that box number 1 on the blue game board is a winning box. Because box number 1 is a winning box, it is shaded green and it displays £20 on the blue game board.

Now look at the right side of the screen. Because the winning boxes are different for the two game boards, box number 1 cannot be a winning box on the yellow game board. This means that box number 1 on the yellow game board is a losing box.

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Now suppose instead that box number 1 is a losing box on the blue game board. Below is a sample screen you will see in this situation.

Sample Round No. 2

The winning boxes depend on the envelopes drawn earlier.

The following sets of winning boxes are equally likely.

30 out of 100

10 out of 100

10 out of 100

30 out of 100

I thought the chance that this game board would reveal a winning box in this round was

very lowvery high

I AM PLAYING THE BLUE GAME BOARD

£0	11	21	31	41	51	61	71	81	91
2	12	22	32	42	52	62	72	82	92
3	13	23	33	43	53	63	73	83	93
4	14	24	34	44	54	64	74	84	94
5	15	25	35	45	55	65	75	85	95
6	16	26	36	46	56	66	76	86	96
7	17	27	37	47	57	67	77	87	97
8	18	28	38	48	58	68	78	88	98
9	19	29	39	49	59	69	79	89	99
10	20	30	40	50	60	70	80	90	100

I announce that the box number for this round is “1”. You click on that box to open the box and reveal whether it is a winning box or a losing box. Since box number 1 is a losing box in this example, it displays £0 and it is shaded red.

Your computer will then show a screen that summarises what you learned about the game boards in that round. A sample of that screen is shown on the next page.

[continued over the page]

Sample Round No. 2
The winning boxes depend on the envelopes drawn earlier.
The following sets of winning boxes are equally likely.

30 out of 100
10 out of 100
10 out of 100
30 out of 100

I thought the chance that this game board would reveal a winning box in this round was

very lowvery high

I AM PLAYING THE BLUE GAME BOARD

£0	11	21	31	41	51	61	71	81	91
2	12	22	32	42	52	62	72	82	92
3	13	23	33	43	53	63	73	83	93
4	14	24	34	44	54	64	74	84	94
5	15	25	35	45	55	65	75	85	95
6	16	26	36	46	56	66	76	86	96
7	17	27	37	47	57	67	77	87	97
8	18	28	38	48	58	68	78	88	98
9	19	29	39	49	59	69	79	89	99
10	20	30	40	50	60	70	80	90	100

1 is a losing box on the blue game board

1 may be a winning box or may be a losing box on the yellow game board

The left side of the sample screen reminds you that box number 1 is a losing box on the blue game board, therefore, it is shaded red and it displays £0.

Now look at the right side of the sample screen. Recall that there are forty winning boxes, and the winning boxes are different for the blue and yellow game boards. Since box number 1 is a losing box on the blue game board, box number 1 may be a winning box or may be a losing box on the yellow game board.

Part 2 has one round where each of you will be given one play of either the blue game board or the yellow game board. The game board will have the same set of winning boxes programmed into it as in Part 1.

You will then have the opportunity to earn an amount of money, in addition to your participation fee of £2. The additional amount of money you will earn will depend on the outcome of your decision in Part 2.

At the beginning of Part 2, I will put back all balls drawn in Part 1 so that it is possible to draw a box number that was opened in Part 1.

I will describe Part 2 in more detail after we complete Part 1.

Are there any questions?

Part 2 Instructions

We have completed Part 1. I will now describe the task in Part 2.

Part 2 has one round where each of you will play either the blue game board or the yellow game board. Each coloured game board has the same set of winning boxes programmed into it as in Part 1. Recall that the set of winning boxes on the blue game board are the box numbers listed on the envelope marked “blue” while the set of winning boxes on the yellow game board are the box numbers listed on the envelope marked “yellow”.

Your game board gives you the chance to earn money either by keeping your game board and receiving the earnings from your play of it, or by exchanging your game board for an amount of money.

Before we begin, my assistant will now put back in the bingo cage all balls drawn in Part 1.

This bingo cage now contains 100 balls.

Each of you will have an individual draw from this bingo cage. The ball I draw will determine the box number to be opened on your game board. Because all the balls selected during Part 1 have been returned in the bingo cage, it is possible for me to draw any box number from 1 to 100, including the boxes that were opened played in Part 1.

Please click on the button labelled continue. Your computer screen now displays your game board. Indicate what you think is the chance that your game board will reveal a winning box when we conduct your individual draw. After you have done so, click on the button labelled confirm.

I am going to offer a price in exchange for your game board.

Here is a bag containing thirty-five envelopes. Each envelope contains one of thirty-five possible prices ranging from 20p to £20. Each price is listed on a decision form that will be shown on your computer screen.

I will now ask one of you to draw one envelope from this bag but do not open the envelope. The price in the envelope will be the price I will offer in exchange for your game board. We will call this the offer price.

My assistant will post the envelope on the wall. I will open the envelope only after everyone has submitted their decision form.

Look again at your computer screen. Your decision form gives you the opportunity to exchange the result of your play of your game board for the offer price posted on the wall. Listed on the decision form are all the possible offer prices that may be in the envelope. Think of each price individually. At each price, carefully consider whether you prefer to keep your game board and receive the earnings from your play of it, or you prefer to exchange your game board and receive that offer price. For each price, click on the appropriate button to indicate which you prefer.

After everyone has submitted their decision form, I will open the envelope posted on the wall to reveal the offer price. I will announce the offer price and my assistant will input the offer price into the computer. Your computer will then remind you of your decision at that offer price.

I will then go to each of you for your individual draw. I will draw one ball from the bingo cage and I will show you the box number printed on the ball. You will then click on that box as you did in Part 1 to open the box and reveal the value of that box to you.

[continued over the page]

I will then return the ball before conducting the individual draw for the next participant. All 100 balls will be in the bingo cage when we conduct your individual draw.

If you decided to keep your game board at the offer price, you will receive the earnings from your play of your game board plus your participation fee. If you decided to exchange your game board at the offer price, your earnings will be the offer price plus your participation fee.

Before we begin Part 2, are there any questions?

Part 1 Instructions

Please follow along as I read through the instructions. If you have a question, please raise your hand and I will come to answer your question privately.

Each of you will earn £2 for participating in today's session. You will have the opportunity to earn an additional amount of money which will depend on a decision you will make and on chance. You will receive your earnings before you leave today.

This experiment involves two coloured game boards: a blue game board and a yellow game board. These game boards have been set up on your computer. Towards the end of the experiment, you will make a decision that involves one of the game boards.

This experiment has two parts. Part 1 consists of ten rounds, while Part 2 has one round. Your earnings will depend on the outcome of your decision in Part 2.

In Part 1, the ten rounds are samples that will give you the opportunity to learn as much as you can about the game boards. Each game board contains 100 boxes numbered from 1 to 100. Each box is either a winning box or a losing box. A winning box has a value to you of £20, while a losing box has a value to you of £0.

At the start of the experiment, you will not know the values of the boxes. You will not even know how many winning boxes there are on each game board. Each game board has either ten or thirty winning boxes.

In each of the ten rounds, the value of a different box will be revealed. At the end of Part 1, you will have seen the value of ten boxes.

We will now fix how many winning boxes there are on each game board, and what those box numbers are.

Here is a bingo cage containing 100 balls numbered from 1 to 100. Before today's experiment, we picked forty balls from this bingo cage. We put thirty of these numbers into one envelope and the other ten numbers into a different envelope. Here are the two envelopes. I will now put the envelopes in this bag.

We returned all the balls in the bingo cage and then picked another set of forty balls. We put thirty of these numbers into one envelope and the other ten numbers into a different envelope. Here are the two other envelopes. I will now put the envelopes in this other bag.

I will now ask one of you to come forward. Please pick one envelope from the first bag but do not open the envelope. Please write "blue" on that envelope. Now, take the other envelope from the bag and write "unused for blue" on that envelope.

Here is the second bag. Now pick one envelope and then write "yellow" on that envelope. Now, take the other envelope from the bag and write "unused for yellow" on that envelope.

The numbers inside the envelope marked "blue" are the numbers of the winning boxes for the blue game board. The numbers inside the envelope marked "yellow" are the numbers of the winning boxes for the yellow game board. Since there are two sets of forty winning boxes, one for the blue game board and another for the yellow game board, the winning boxes for the two game boards may be the same or may be different. Depending on which envelopes were picked, each game board may have either ten or thirty winning boxes.

My assistant will open the envelope and then programme the winning boxes into the game boards. I will post the envelopes on the wall after we finish reading the instructions. You are welcome to inspect the envelopes at the end of the experiment.

I will now describe the computer screens you will encounter in each round.

[continued over the page]

At the start of each round, your computer will display either the blue game board or the yellow game board. Look at the sample screens below.

Sample Round No. 1
The winning boxes depend on the envelopes drawn earlier.
The following sets of winning boxes are equally likely.

30 out of 100

30 out of 100

10 out of 100

10 out of 100

30 out of 100

10 out of 100

10 out of 100

30 out of 100

I think the chance that this game board will reveal a winning box in this round is

very low very high

I AM PLAYING THE BLUE GAME BOARD

1	11	21	31	41	51	61	71	81	91
2	12	22	32	42	52	62	72	82	92
3	13	23	33	43	53	63	73	83	93
4	14	24	34	44	54	64	74	84	94
5	15	25	35	45	55	65	75	85	95
6	16	26	36	46	56	66	76	86	96
7	17	27	37	47	57	67	77	87	97
8	18	28	38	48	58	68	78	88	98
9	19	29	39	49	59	69	79	89	99
10	20	30	40	50	60	70	80	90	100

Sample Round No. 1
The winning boxes depend on the envelopes drawn earlier.
The following sets of winning boxes are equally likely.

30 out of 100

30 out of 100

10 out of 100

10 out of 100

30 out of 100

10 out of 100

10 out of 100

30 out of 100

I think the chance that this game board will reveal a winning box in this round is

very low very high

I AM PLAYING THE YELLOW GAME BOARD

1	11	21	31	41	51	61	71	81	91
2	12	22	32	42	52	62	72	82	92
3	13	23	33	43	53	63	73	83	93
4	14	24	34	44	54	64	74	84	94
5	15	25	35	45	55	65	75	85	95
6	16	26	36	46	56	66	76	86	96
7	17	27	37	47	57	67	77	87	97
8	18	28	38	48	58	68	78	88	98
9	19	29	39	49	59	69	79	89	99
10	20	30	40	50	60	70	80	90	100

The top screen is the screen you will see if you are playing the blue game board. You will always play the blue game board on the left side of your screen. The bottom screen is the screen you will see if you are playing the yellow game board. You will always play the yellow game board on the right side of your screen.

[continued over the page]

Sample Round No. 1

The winning boxes depend on the envelopes drawn earlier.

The following sets of winning boxes are equally likely.

30 out of 100

30 out of 100

10 out of 100

10 out of 100

30 out of 100

10 out of 100

10 out of 100

30 out of 100

Here is a picture of the top portion of the sample screens shown on the previous page. It shows you the possible sets of winning boxes on the blue and yellow game boards. Remember that the sets of winning boxes depend on the contents of the envelopes marked “blue” and marked “yellow”.

Starting from the top-left, the first possibility is that the blue and yellow game boards both have thirty winning boxes. This possibility occurs if the envelopes marked “blue” and marked “yellow” both contain thirty winning numbers. The second possibility is that the blue and yellow game boards both have ten winning boxes. This possibility occurs if the envelopes marked “blue” and marked “yellow” both contain ten winning numbers. The third possibility is that the blue game board has thirty winning boxes while the yellow game board has ten winning boxes. This possibility occurs if the envelope that was marked “blue” contains thirty winning numbers and the envelope marked “yellow” has ten winning numbers. The fourth possibility is that the blue game board has ten winning boxes while the yellow game board has thirty winning boxes. This possibility occurs if the envelope that was marked “blue” contains ten winning numbers and the envelope marked “yellow” has thirty winning numbers. These four possibilities are equally likely.

In each round, you will indicate on your screen what you think is the chance that the game board will reveal a winning box in that round. You will then click on the button labelled confirm. A sample of that section on the screen is highlighted on the game board below.

Sample Round No. 1

The winning boxes depend on the envelopes drawn earlier.

The following sets of winning boxes are equally likely.

30 out of 100

30 out of 100

10 out of 100

10 out of 100

30 out of 100

10 out of 100

10 out of 100

30 out of 100

I think the chance that this game board will reveal a winning box in this round is

very low

very high

confirm

I AM PLAYING THE YELLOW GAME BOARD

1	11	21	31	41	51	61	71	81	91
2	12	22	32	42	52	62	72	82	92
3	13	23	33	43	53	63	73	83	93
4	14	24	34	44	54	64	74	84	94
5	15	25	35	45	55	65	75	85	95
6	16	26	36	46	56	66	76	86	96
7	17	27	37	47	57	67	77	87	97
8	18	28	38	48	58	68	78	88	98
9	19	29	39	49	59	69	79	89	99
10	20	30	40	50	60	70	80	90	100

Let us consider two examples: a case with a winning box and a case with a losing box. Below is a sample screen you will see if the announced box number is a winning box.

Suppose that we had revealed the value of box number 5 in sample round number 1. We are in sample round number 2 where you are playing the blue game board.

Notice that box number 5 is shaded grey. The boxes with values revealed in the previous rounds are shaded grey. These boxes will not be opened again in the remaining rounds in Part 1.

[continued over the page]

Sample Round No. 2
The winning boxes depend on the envelopes drawn earlier.
The following sets of winning boxes are equally likely.

30 out of 100 30 out of 100
10 out of 100 10 out of 100
30 out of 100 10 out of 100
10 out of 100 30 out of 100

I thought the chance that this game board would reveal a winning box in this round was

very lowvery high

I AM PLAYING THE BLUE GAME BOARD

£20	11	21	31	41	51	61	71	81	91
2	12	22	32	42	52	62	72	82	92
3	13	23	33	43	53	63	73	83	93
4	14	24	34	44	54	64	74	84	94
5	15	25	35	45	55	65	75	85	95
6	16	26	36	46	56	66	76	86	96
7	17	27	37	47	57	67	77	87	97
8	18	28	38	48	58	68	78	88	98
9	19	29	39	49	59	69	79	89	99
10	20	30	40	50	60	70	80	90	100

1 is a winning box on the blue game board

1 may be a winning box or may be a losing box on the yellow game board

The left side of the screen reminds you that you just played the blue game board in sample round number 2. It also reminds you that box number 1 on the blue game board is a winning box. Because box number 1 is a winning box, it is shaded green and it displays £20 on the blue game board.

Now look at the right side of the screen. Since there are two sets of forty winning boxes, one for the blue game board and another for the yellow game board, the winning boxes for the two game boards may be the same or may be different. This means that while box number 1 is a winning box on the blue game board, it may be a winning box or may be a losing box on the yellow game board.

[continued over the page]

Now suppose instead that box number 1 is a losing box on the blue game board. Below is a sample screen you will see in this situation.

Sample Round No. 2

The winning boxes depend on the envelopes drawn earlier.

The following sets of winning boxes are equally likely.

30 out of 100

30 out of 100

10 out of 100

10 out of 100

30 out of 100

10 out of 100

10 out of 100

30 out of 100

I thought the chance that this game board would reveal a winning box in this round was

very lowvery high

I AM PLAYING THE BLUE GAME BOARD

£0	11	21	31	41	51	61	71	81	91
2	12	22	32	42	52	62	72	82	92
3	13	23	33	43	53	63	73	83	93
4	14	24	34	44	54	64	74	84	94
5	15	25	35	45	55	65	75	85	95
6	16	26	36	46	56	66	76	86	96
7	17	27	37	47	57	67	77	87	97
8	18	28	38	48	58	68	78	88	98
9	19	29	39	49	59	69	79	89	99
10	20	30	40	50	60	70	80	90	100

I announce that the box number for this round is “1”. You click on that box to open the box and reveal whether it is a winning box or a losing box. Since box number 1 is a losing box in this example, it displays £0 and it is shaded red.

Your computer will then show a screen that summarises what you learned about the game boards in that round. A sample of that screen is shown on the next page.

[continued over the page]

Sample Round No. 2
The winning boxes depend on the envelopes drawn earlier.
The following sets of winning boxes are equally likely.

30 out of 100 30 out of 100
10 out of 100 10 out of 100
30 out of 100 10 out of 100
10 out of 100 30 out of 100

I thought the chance that this game board would reveal a winning box in this round was

very low very high

I AM PLAYING THE BLUE GAME BOARD

£0	11	21	31	41	51	61	71	81	91
2	12	22	32	42	52	62	72	82	92
3	13	23	33	43	53	63	73	83	93
4	14	24	34	44	54	64	74	84	94
5	15	25	35	45	55	65	75	85	95
6	16	26	36	46	56	66	76	86	96
7	17	27	37	47	57	67	77	87	97
8	18	28	38	48	58	68	78	88	98
9	19	29	39	49	59	69	79	89	99
10	20	30	40	50	60	70	80	90	100

1 is a losing box on the blue game board

1 may be a winning box or may be a losing box on the yellow game board

The left side of the sample screen reminds you that box number 1 is a losing box on the blue game board, therefore, it is shaded red and it displays £0.

Now look at the right side of the sample screen. Recall that there are two sets of forty winning boxes, one for the blue game board and another for the yellow game board. This means that the winning boxes for the two game boards may be the same or may be different. In the example, while box number 1 is a losing box on the blue game board, it may be a winning box or may be a losing box on the yellow game board.

Part 2 has one round where each of you will be given one play of either the blue game board or the yellow game board. The game board will have the same set of winning boxes programmed into it as in Part 1.

You will then have the opportunity to earn an amount of money, in addition to your participation fee of £2. The additional amount of money you will earn will depend on the outcome of your decision in Part 2.

At the beginning of Part 2, I will put back all balls drawn in Part 1 so that it is possible to draw a box number that was opened in Part 1.

I will describe Part 2 in more detail after we complete Part 1.

Are there any questions?

Part 2 Instructions

We have completed Part 1. I will now describe the task in Part 2.

Part 2 has one round where each of you will play either the blue game board or the yellow game board. Each coloured game board has the same set of winning boxes programmed into it as in Part 1. Recall that the set of winning boxes on the blue game board are the box numbers listed on the envelope marked “blue” while the set of winning boxes on the yellow game board are the box numbers listed on the envelope marked “yellow”.

Your game board gives you the chance to earn money either by keeping your game board and receiving the earnings from your play of it, or by exchanging your game board for an amount of money.

Before we begin, my assistant will now put back in the bingo cage all balls drawn in Part 1.

This bingo cage now contains 100 balls.

Each of you will have an individual draw from this bingo cage. The ball I draw will determine the box number to be opened on your game board. Because all the balls selected during Part 1 have been returned in the bingo cage, it is possible for me to draw any box number from 1 to 100, including the boxes that were opened played in Part 1.

Please click on the button labelled continue. Your computer screen now displays your game board. Indicate what you think is the chance that your game board will reveal a winning box when we conduct your individual draw. After you have done so, click on the button labelled confirm.

I am going to offer a price in exchange for your game board.

Here is a bag containing thirty-five envelopes. Each envelope contains one of thirty-five possible prices ranging from 20p to £20. Each price is listed on a decision form that will be shown on your computer screen.

I will now ask one of you to draw one envelope from this bag but do not open the envelope. The price in the envelope will be the price I will offer in exchange for your game board. We will call this the offer price.

My assistant will post the envelope on the wall. I will open the envelope only after everyone has submitted their decision form.

Look again at your computer screen. Your decision form gives you the opportunity to exchange the result of your play of your game board for the offer price posted on the wall. Listed on the decision form are all the possible offer prices that may be in the envelope. Think of each price individually. At each price, carefully consider whether you prefer to keep your game board and receive the earnings from your play of it, or you prefer to exchange your game board and receive that offer price. For each price, click on the appropriate button to indicate which you prefer.

After everyone has submitted their decision form, I will open the envelope posted on the wall to reveal the offer price. I will announce the offer price and my assistant will input the offer price into the computer. Your computer will then remind you of your decision at that offer price.

I will then go to each of you for your individual draw. I will draw one ball from the bingo cage and I will show you the box number printed on the ball. You will then click on that box as you did in Part 1 to open the box and reveal the value of that box to you.

[continued over the page]

I will then return the ball before conducting the individual draw for the next participant. All 100 balls will be in the bingo cage when we conduct your individual draw.

If you decided to keep your game board at the offer price, you will receive the earnings from your play of your game board plus your participation fee. If you decided to exchange your game board at the offer price, your earnings will be the offer price plus your participation fee.

Before we begin Part 2, are there any questions?

Part 2 Decision Form (Yellow)

Decision Form					
Below is a list of possible offer prices that may be in the envelope. Think of each price individually. At each price, carefully consider whether you prefer to keep your game board and receive the earnings from your play of it, or you prefer to exchange your game board and receive that offer price. For each price, click on the appropriate button to indicate which you prefer.					
If the price offered is 20p, I will	keep my game board	<input type="radio"/> exchange my game board for 20p	If the price offered is £5.00, I will	keep my game board	<input type="radio"/> exchange my game board for £5.00
If the price offered is 40p, I will	keep my game board	<input type="radio"/> exchange my game board for 40p	If the price offered is £5.50, I will	keep my game board	<input type="radio"/> exchange my game board for £5.50
If the price offered is 60p, I will	keep my game board	<input type="radio"/> exchange my game board for 60p	If the price offered is £6.00, I will	keep my game board	<input type="radio"/> exchange my game board for £6.00
If the price offered is 80p, I will	keep my game board	<input type="radio"/> exchange my game board for 80p	If the price offered is £6.50, I will	keep my game board	<input type="radio"/> exchange my game board for £6.50
If the price offered is £1.00, I will	keep my game board	<input type="radio"/> exchange my game board for £1.00	If the price offered is £7.00, I will	keep my game board	<input type="radio"/> exchange my game board for £7.00
If the price offered is £1.20, I will	keep my game board	<input type="radio"/> exchange my game board for £1.20	If the price offered is £7.50, I will	keep my game board	<input type="radio"/> exchange my game board for £7.50
If the price offered is £1.40, I will	keep my game board	<input type="radio"/> exchange my game board for £1.40	If the price offered is £8.00, I will	keep my game board	<input type="radio"/> exchange my game board for £8.00
If the price offered is £1.60, I will	keep my game board	<input type="radio"/> exchange my game board for £1.60	If the price offered is £8.50, I will	keep my game board	<input type="radio"/> exchange my game board for £8.50
If the price offered is £1.80, I will	keep my game board	<input type="radio"/> exchange my game board for £1.80	If the price offered is £9.00, I will	keep my game board	<input type="radio"/> exchange my game board for £9.00
If the price offered is £2.00, I will	keep my game board	<input type="radio"/> exchange my game board for £2.00	If the price offered is £10.00, I will	keep my game board	<input type="radio"/> exchange my game board for £10.00
If the price offered is £2.20, I will	keep my game board	<input type="radio"/> exchange my game board for £2.20	If the price offered is £11.00, I will	keep my game board	<input type="radio"/> exchange my game board for £11.00
If the price offered is £2.40, I will	keep my game board	<input type="radio"/> exchange my game board for £2.40	If the price offered is £12.00, I will	keep my game board	<input type="radio"/> exchange my game board for £12.00
If the price offered is £2.60, I will	keep my game board	<input type="radio"/> exchange my game board for £2.60	If the price offered is £13.00, I will	keep my game board	<input type="radio"/> exchange my game board for £13.00
If the price offered is £2.80, I will	keep my game board	<input type="radio"/> exchange my game board for £2.80	If the price offered is £14.00, I will	keep my game board	<input type="radio"/> exchange my game board for £14.00
If the price offered is £3.00, I will	keep my game board	<input type="radio"/> exchange my game board for £3.00	If the price offered is £16.00, I will	keep my game board	<input type="radio"/> exchange my game board for £16.00
If the price offered is £3.50, I will	keep my game board	<input type="radio"/> exchange my game board for £3.50	If the price offered is £18.00, I will	keep my game board	<input type="radio"/> exchange my game board for £18.00
If the price offered is £4.00, I will	keep my game board	<input type="radio"/> exchange my game board for £4.00	If the price offered is £20.00, I will	keep my game board	<input type="radio"/> exchange my game board for £20.00
If the price offered is £4.50, I will	keep my game board	<input type="radio"/> exchange my game board for £4.50			

CONTINUE