



## **Consent**

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Thank you for choosing to begin this survey. By continuing on with the survey, you consent to participating in this study.

### **What is the purpose of this research?**

The purpose of this research is to better understand how individuals perform in a task and how individuals make hiring decisions.

### **What can I expect if I take part in this research?**

You will participate in this research for less than half an hour. You will be asked a series of demographic questions and you will be asked to complete several tasks. You may be asked to complete a follow-up survey in two weeks.

### **What should I know about a research study?**

- Whether or not you take part is up to you.
- Your participation is completely voluntary.
- You can choose not to take part.
- You can agree to take part and later change your mind.
- Your decision will not be held against you.
- Your refusal to participate will not result in any consequences or any loss of benefits that you are otherwise entitled to receive.
- You can ask all the questions you want before you decide.

### **You may not be told everything**

As part of this research design, you may not be told everything about the purpose or procedures of this research.

### **Who can I talk to?**

If you have questions, concerns, or complaints, or think the research has hurt you, talk to the research team at [emmarackstraw@fas.harvard.edu](mailto:emmarackstraw@fas.harvard.edu).

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## Intro

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The survey has two parts. In the first part, you will answer 50 short multiple-choice math questions. In the second part, you will answer some very basic demographic questions. In total, we expect this to take about 20 minutes.

We are interested in determining how many of these math questions you can get right without any help. So please **do not** use a calculator or look up the answers, but rather just do your best. The number of questions you answer correctly will not directly affect your payment, but you must answer all questions to receive payment.

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## Math

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Q1. What is the square root of 289?

- ☐ 17
  - ☐ 19
  - ☐ 21
  - ☐ 15
- 

Q2.  $4 - 8 \cdot 9 / 2 = ?$

- ☐ -12
  - ☐ -6
  - ☐ -32
  - ☐ -18
- 

Q3.  $3^5 = ?$

- ☐ 405
  - ☐ 729
  - ☐ 81
  - ☐ 243
- 

Q4.  $5 \cdot 6 \cdot 7 = ?$

- ☐ 240
  - ☐ 210
  - ☐ 180
  - ☐ 233
- 

Q5. What is the reduced form of the fraction  $70/42$ ?

- ☐  $14/10$
  - ☐  $10/6$
  - ☐  $7/5$
  - ☐  $5/3$
- 

Q6. What is the cubic root of 64?

- ☐ 6
  - ☐ 4
  - ☐ 3
  - ☐ 5
- 

Q7.  $(4+5)/5 = ?$

- ☐ 1
- ☐ 1.8
- ☐ 6.25
- ☐ 5

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Q8.  $x+2 < 18/3$ . Which of the following is necessarily **false**?

- ☐  $x < 4$
  - ☐  $x < 3$
  - ☐  $x > 4$
  - ☐  $x > 3$
- 

Q9.  $x^5 * x^8 = ?$

- ☐  $x^{13}$
  - ☐  $x^{11}$
  - ☐  $x^{12}$
  - ☐  $x^{14}$
- 

Q10. Which of the following is approximately equal to 0.833?

- ☐  $3/4$
  - ☐  $5/6$
  - ☐  $4/5$
  - ☐  $6/7$
- 

Q11.  $x=5$ ,  $y=6$ ,  $z=7$ , then what is  $xy/(z-4)$ ?

- ☐ 10
  - ☐ 8
  - ☐ 6
  - ☐ 4
- 

Q12. Which of the following is the closest integer to  $45/7$ ?

- ☐ 7
- ☐ 6

☐ 5

☐ 8

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Q13. Which of the following is an integer multiple of 9?

☐ 3618

☐ 3617

☐ 3620

☐ 3619

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Q14.  $10/5 + 34 - 4 = ?$

☐ 30

☐ 34

☐ 32

☐ 36

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Q15.  $(x-1)(x^2-4)=0$ , then which of the following **cannot** be  $x$ ?

☐ 2

☐ -2

☐ -1

☐ 1

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Q16. What is the square root of 196?

☐ 15

☐ 14

☐ 12

☐ 13

---

Q17.  $5-6/(18/9) = ?$

- ☐ -0.5
  - ☐ 0.5
  - ☐ -2
  - ☐ 2
- 

Q18.  $(y+9)(y^2-121)=0$ , then which of the following **cannot** be  $y$ ?

- ☐ -11
  - ☐ 9
  - ☐ 11
  - ☐ -9
- 

Q19. Which of the following is an integer multiple of 11?

- ☐ 130
  - ☐ 133
  - ☐ 132
  - ☐ 131
- 

Q20.  $5+6+7+8+9+10 = ?$

- ☐ 45
  - ☐ 48
  - ☐ 42
  - ☐ 51
- 

Q21. What is the binary form of 7?

- ☐ 100
- ☐ 111

☐ 110

☐ 101

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Q22.  $35/7+1 = ?$

☐ 7

☐ 6

☐ 4

☐ 5

---

Q23.  $24/4/3 = ?$

☐ 4

☐ 1

☐ 2

☐ 3

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Q24. Which of the following is an integer multiple of 4?

☐ 56

☐ 74

☐ 62

☐ 66

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Q25. Which of the following is **not** a prime number?

☐ 4

☐ 2

☐ 5

☐ 3

---

Q26.  $2 \cdot 3 \cdot 4 \cdot 5 = ?$

- ☐ 720
  - ☐ 24
  - ☐ 240
  - ☐ 120
- 

Q27.  $6^3 = ?$

- ☐ 128
  - ☐ 432
  - ☐ 216
  - ☐ 36
- 

Q28.  $(4 \cdot 2 + 7 \cdot 8) / 4 = ?$

- ☐ 24
  - ☐ 16
  - ☐ 20
  - ☐ 12
- 

Q29. Which of the following is a prime number?

- ☐ 25
  - ☐ 21
  - ☐ 27
  - ☐ 23
- 

Q30.  $16 < x + 8 < 26$ . Which of the following could  $x$  be?

- ☐ 13
- ☐ 8



☐ 23

☐ 18

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Q31.  $45+3-1 = ?$

☐ 47

☐ 46

☐ 49

☐ 48

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Q32.  $x^6 + x^6 = ?$

☐  $x^{12}$

☐  $x^{36}$

☐  $(2x)^6$

☐  $2x^6$

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Q33. Which of the following fractions cannot be further reduced?

☐  $\frac{3}{5}$

☐  $\frac{3}{6}$

☐  $\frac{7}{35}$

☐  $\frac{46}{2}$

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Q34. Which of the following numbers has an integer square root?

☐ 32

☐ 48

☐ 40

☐ 36

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Q35.  $5 \cdot (7+3) + 5 - 4 = ?$

- ☐ 39
  - ☐ 32
  - ☐ 51
  - ☐ 55
- 

Q36. Which of the following is **not** a factor of 30?

- ☐ 4
  - ☐ 5
  - ☐ 2
  - ☐ 3
- 

Q37.  $x^6 / x^4 = ?$

- ☐  $x^{24}$
  - ☐  $x^{10}$
  - ☐  $x^{(2/3)}$
  - ☐  $x^2$
- 

Q38.  $56/8 = ?$

- ☐ 8
  - ☐ 5
  - ☐ 7
  - ☐ 6
- 

Q39.  $2^4 - 3^3 = ?$

- ☐ 11
- ☐ -11

☐ -9

☐ 9

---

Q40.  $(18+19+20)/3 = ?$

☐ 19

☐ 21

☐ 18

☐ 20

---

Q41. Twenty **cannot** be divided by which of the following?

☐ 2

☐ 4

☐ 3

☐ 5

---

Q42.  $4+8+12+16 = ?$

☐ 25

☐ 20

☐ 40

☐ 45

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Q43.  $(x^5)^3 = ?$

☐  $5x^3$

☐  $x^{15}$

☐  $x^8$

☐  $3x^5$

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Q44. Which of the following is the correct factorization of 36?

- ☐  $4 * 3^2$
  - ☐  $2^2 * 9$
  - ☐  $2^2 * 3^2$
  - ☐  $4 * 9$
- 

Q45.  $3^2 * 2 = ?$

- ☐ 24
  - ☐ 81
  - ☐ 18
  - ☐ 42
- 

Q46.  $-2 * (-3 - 8) = ?$

- ☐ 14
  - ☐ 22
  - ☐ -14
  - ☐ -22
- 

Q47. Which of the following is an integer multiple of 5?

- ☐ 44
  - ☐ 45
  - ☐ 46
  - ☐ 43
- 

Q48.  $x^4 = 81$ . What is  $x$ ?

- ☐ 6
- ☐ 3

- ☐ 9
  - ☐ 20.5
- 

Q49.  $76/4 = ?$

- ☐ 18
  - ☐ 20
  - ☐ 19
  - ☐ 17
- 

Q50. Which of the following is negative?

- ☐  $(-2)^2$
  - ☐  $(-2)^3$
  - ☐  $2^3$
  - ☐  $2^2$
- 

## Demographics

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Please answer the personal profile questions below:

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Please enter your M-Turk ID.

What is your favorite color?

What is your favorite movie?

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Do you prefer coffee or tea?

- ☐ Coffee
- ☐ Tea

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What is your age?

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What is your gender?

- ☐ Female
- ☐ Male

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What is your race?

- ☐ White
- ☐ Black or African-American
- ☐ American Indian or Alaska Native
- ☐ Asian
- ☐ Native Hawaiian or Pacific Islander
- ☐ Other

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What is your ethnicity?

- ☐ Hispanic
- ☐ Not Hispanic

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Please indicate the highest level of education you have completed.

- ☐ Less than High School
- ☐ High School or equivalent

- ☐ Vocational/Technical School (2 year)
  - ☐ Some College
  - ☐ College Graduate (4 year)
  - ☐ Master's Degree (MS)
  - ☐ Doctoral Degree (PhD)
  - ☐ Professional Degree (MD, JD, etc.)
  - ☐ Other
- 

Are you primarily left-handed or right-handed?

- ☐ Left-handed
  - ☐ Right-handed
- 

## Final

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Thank you for your participation. In addition to your base payment, we may put a small bonus into your account sometime in the next few weeks. Who receives the bonus payment is determined by a different experiment that we are doing and is unrelated to how well you did in the task. Please just think of it as an additional appreciation for your efforts.

Please make sure you hit the Next arrow below to submit this survey and to receive your unique validation code to ensure you receive your payment.

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