

PROBABILITY SCALE

Answer all of these questions. Remember to show your working out in all questions.

MAIN QUESTIONS

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|----|--|---------------------|-----|---|------------------------|
| 1. | Place these probabilities in order from least to most likely:
0.5, 0.1, 0.9, 0.01 | 0.01, 0.1, 0.5, 0.9 | 2. | Convert $\frac{1}{2}$ to a decimal probability | 0.5 |
| 3. | Convert 0.75 to a fraction in simplest form | $\frac{3}{4}$ | 4. | Convert $\frac{3}{5}$ to a decimal probability | 0.6 |
| 5. | Convert 0.2 to a fraction in simplest form | $\frac{1}{5}$ | 6. | Place these probabilities in order from least to most likely:
0.3, 0.03, 0.33, 0.033 | 0.03, 0.033, 0.3, 0.33 |
| 7. | Convert $\frac{7}{10}$ to a decimal probability | 0.7 | 8. | Convert 0.125 to a fraction in simplest form | $\frac{1}{8}$ |
| 9. | Convert $\frac{4}{5}$ to a decimal probability | 0.8 | 10. | Convert 0.6 to a fraction in simplest form | $\frac{3}{5}$ |

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| <p>11. Place these probabilities in order from least to most likely:
0.25, 0.5,
0.05, 0.75</p> | <p>12. Convert $\frac{1}{4}$ to a decimal probability</p> |
| <p>13. Convert 0.875 to a fraction in simplest form</p> | <p>14. Convert $\frac{2}{3}$ to a decimal probability (round to 2 decimal places)</p> |
| <p>15. Convert 0.4 to a fraction in simplest form</p> | <p>16. Place these probabilities in order from least to most likely:
0.99, 0.09,
0.9, 0.999</p> |
| <p>17. Convert $\frac{5}{8}$ to a decimal probability</p> | <p>18. Convert 0.375 to a fraction in simplest form</p> |
| <p>19. Convert $\frac{9}{10}$ to a decimal probability</p> | <p>20. Convert 0.16 to a fraction in simplest form</p> |

MASTER QUESTIONS



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|---|-------------------|
| <p>M1. A bag contains 4 red, 3 blue, and 5 green marbles. What is the probability of drawing a red marble?</p> | <p>1/3</p> |
| <p>M2. A fair six-sided die is rolled. What is the probability of rolling a prime number?</p> | <p>1/2</p> |

- M3.** A spinner has 8 equal sections numbered 1 to 8. What is the probability of landing on an even number? | $\frac{1}{2}$
- M4.** A deck of 52 cards is shuffled. What is the probability of drawing a heart or a king? | $\frac{4}{13}$
- M5.** A class has 12 boys and 18 girls. If a student is chosen at random, what is the probability they are a girl? | $\frac{3}{5}$
- M6.** A bag contains 6 white balls and 4 black balls. Two balls are drawn without replacement. What is the probability both are white? | $\frac{1}{3}$
- M7.** A fair coin is flipped three times. What is the probability of getting exactly two heads? | $\frac{3}{8}$
- M8.** A box contains 5 red, 4 blue and 6 green pencils. If one pencil is taken at random, what is the probability it is not green? | $\frac{3}{5}$
- M9.** Two fair dice are rolled. What is the probability the sum is 7? | $\frac{1}{6}$
- M10.** A lottery has 100 tickets, 10 of which are winners. If you buy 5 tickets, what is the probability at least one is a winner? | $1 - (90/100 \times 89/99 \times 88/98 \times 87/97 \times 86/96)$