



Outcome 2 - Calculating Probability

Bronze examples


Examples... **Probability should be written as a fraction in its simplest form**


A dice numbered 1 to 6 is rolled.  What is the probability that a 3 is rolled? $\frac{1}{6}$

There are 52 cards in a pack. If a card is chosen at random, what is the probability that it will be a heart?  $\frac{1}{4}$

Silver examples


Examples... **Probability should be written as a fraction in its simplest form**


A dartboard is numbered 1-20. What is the probability of scoring less than 20.  $\frac{19}{20}$

A standard roulette wheel is numbered 0-36. What is the probability that it will land on a red number?  $\frac{18}{37}$

Gold examples











Examples... **Probability should be written as a fraction in its simplest form**

A dartboard is numbered 1-20.  What is the probability of scoring less than 11? $\frac{10}{20} = \frac{1}{2}$

A standard pack of playing cards has 52 cards. What is the probability of choosing an ace from a pack of playing cards?  $\frac{4}{52} = \frac{1}{13}$











Bronze Questions

Write down the probability of each event happening...

- 1 Rolling a dice and getting a 4. 
- 2 Choosing a playing card at random and getting a diamond. 
- 3 Tossing a coin and getting 'heads'. 
- 4 Picking a month of the year at random and choosing March. 
- 5 Selecting the letter O from the word RIGOUR. 
- 6 Picking the number 6 from the numbers on a clock face. 
- 7 Picking a day of the week at random and choosing Monday. 
- 8 Choosing a blue pencil from a box containing a red, a blue and a green pencil. 
- 9 From the days of the year, choosing Boxing Day. 
- 10 From a bowl containing an apple, a banana and a pear and selecting an apple. 











Silver Questions

Write down the probability of each event happening...

- 1 A roulette wheel landing on a number less than 15. 
- 2 Picking an odd number from the list :- 1, 3, 5, 8, 9, 10, 11. 
- 3 Selecting the letter I from the word DIVISION. 
- 4 Picking an even number from the list :- 1, 3, 5, 8, 10, 15, 17, 19, 21. 
- 5 Scoring less than 14 on a dartboard numbered 1-20. 
- 6 Winning a raffle when buying 7 out of the 150 tickets sold. 
- 7 Picking a day of the week at random starting with 'S'. 
- 8 Choosing a blue pencil from a box containing 2 red, 5 blue and 4 green pencils. 
- 9 From the days of the year, choosing a day in July. 
- 10 From a bowl containing 4 apples, 6 oranges, 5 pears and 2 oranges, selecting an apple. 

Gold Questions

Write down the probability of each event happening...

- 1 Rolling a dice and getting a score more than 4. 
- 2 Picking an odd number from the list :- 1, 2, 4, 5, 7, 9, 11, 15. 
- 3 Selecting the letter I from the word DIGITS. 
- 4 Picking an even number from the list :- 2, 4, 5, 6, 8, 9, 12, 16, 18, 20. 
- 5 Scoring less than 9 on a dartboard numbered 1-20. 
- 6 Winning a raffle when buying 8 out of the 150 tickets sold. 
- 7 Choosing a ten from a pack of playing cards. 
- 8 Choosing a blue pencil from a box containing 3 red, 3 blue and 6 green pencils. 
- 9 From the days of the year, choosing a day in November. 
- 10 From a bowl containing 4 apples, 6 oranges, 8 pears and 2 oranges, selecting an apple. 

Bronze Answers

- | | | | |
|----|-----------------|-----|----------------|
| 1. | $\frac{1}{6}$ | 2. | $\frac{1}{4}$ |
| 3. | $\frac{1}{2}$ | 4. | $\frac{1}{12}$ |
| 5. | $\frac{1}{6}$ | 6. | $\frac{1}{12}$ |
| 7. | $\frac{1}{7}$ | 8. | $\frac{1}{3}$ |
| 9. | $\frac{1}{365}$ | 10. | $\frac{1}{3}$ |

Silver Answers

- | | | | |
|----|------------------|-----|-----------------|
| 1. | $\frac{15}{37}$ | 2. | $\frac{5}{7}$ |
| 3. | $\frac{3}{8}$ | 4. | $\frac{2}{9}$ |
| 5. | $\frac{13}{20}$ | 6. | $\frac{7}{150}$ |
| 7. | $\frac{2}{7}$ | 8. | $\frac{5}{11}$ |
| 9. | $\frac{31}{365}$ | 10. | $\frac{4}{17}$ |

Gold Answers

- | | | | |
|----|----------------|-----|----------------|
| 1. | $\frac{1}{3}$ | 2. | $\frac{3}{4}$ |
| 3. | $\frac{1}{3}$ | 4. | $\frac{4}{5}$ |
| 5. | $\frac{2}{5}$ | 6. | $\frac{4}{75}$ |
| 7. | $\frac{1}{13}$ | 8. | $\frac{1}{4}$ |
| 9. | $\frac{6}{73}$ | 10. | $\frac{1}{5}$ |