

Build Tasks



Find probabilities from a sample space, and express them as fraction, decimal, and percentage.

1. A fair die is rolled once. Find $P(\text{rolling a number greater than 4})$.

2. A spinner has 8 equal sections numbered 1 to 8. Find $P(\text{spinning a multiple of 3})$.

3. A bag has 4 red, 5 blue, and 3 green counters. Find $P(\text{green})$ as a fraction, decimal, and percentage.

4. Explain the difference between theoretical and experimental probability.

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Use theoretical probability to predict long-run counts.

5. A card is drawn from a standard 52-card deck. Find $P(\text{drawing a King})$.

6. A die is rolled 60 times. Theoretically, how many times would you expect to roll a 6?

7. A coin is flipped 3 times and lands heads all 3 times. Does this mean the coin isn't fair? Explain.

8. A spinner is coloured so that $P(\text{red}) = 0.4$. If spun 200 times, how many times would you theoretically expect red?

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Use complementary events, sample spaces, and the valid range of a probability.

9. Two events are mutually exclusive if they cannot happen at the same time. Give an example using a single die roll.

10. A bag has only red and blue counters. $P(\text{red}) = 0.3$. What is $P(\text{blue})$?

11. List the sample space for flipping a coin and rolling a die together. How many total outcomes are there?

12. A probability is calculated as 1.2. Explain why this cannot be correct.