

# LISTING OUTCOMES

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

## MAIN QUESTIONS

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| 1. List all possible outcomes when flipping a coin.  | 2. List all possible outcomes when rolling a standard six-sided die.                                  |
| 3. List all possible outcomes when drawing a card from a standard deck of 52 cards.  | 4. List all possible outcomes when spinning a spinner divided into 4 equal parts labelled A, B, C, D. |
| 5. List all possible outcomes when tossing two coins simultaneously.   | 6. List all possible outcomes when rolling two six-sided dice.  |
| 7. List all possible outcomes when drawing two marbles from a bag containing red, blue, and green marbles without replacement. | 8. List all possible outcomes when choosing a day of the week.  |
| 9. List all possible outcomes when selecting a vowel from the English alphabet.  | 10. List all possible outcomes when flipping a coin and rolling a die.                                |
| 11. List all possible outcomes when selecting two different letters from the word 'MATH'.                                      | 12. List all possible outcomes when arranging the letters A, B, C in a row.                           |

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| <p><b>13.</b> List all possible outcomes when selecting a prime number less than 10.</p> <p><b>15.</b> List all possible outcomes when selecting a consonant from the word 'BRITISH'.</p> <p><b>17.</b> List all possible outcomes when selecting two different digits from 1 to 3.</p> <p><b>19.</b> List all possible outcomes when selecting a square number between 1 and 20.</p> | <p><b>14.</b> List all possible outcomes when choosing a colour from the rainbow.</p> <p><b>16.</b> List all possible outcomes when rolling a die and flipping a coin twice.</p> <p><b>18.</b> List all possible outcomes when choosing a month of the year.</p> <p><b>20.</b> List all possible outcomes when arranging the digits 1, 2, 3 to form a three-digit number.</p> |
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## MASTER QUESTIONS



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- M1.** A fair six-sided die is rolled twice. List all possible outcomes where the sum of the two rolls is 5.
- M2.** A bag contains 3 red marbles and 2 blue marbles. Two marbles are drawn without replacement. List all possible outcomes.
- M3.** A spinner has three equal sections labelled A, B, and C. It is spun twice. List all possible outcomes where the same letter appears both times.
- M4.** Two coins are flipped. List all possible outcomes where at least one coin shows heads.
- M5.** A standard deck of 52 cards is shuffled. One card is drawn. List all possible outcomes where the card is a heart or a king.
- M6.** A fair die is rolled and a coin is flipped. List all possible outcomes where the die shows an even number and the coin shows tails.

- M7.** A box contains 1 red, 1 blue, and 1 green ball. Two balls are drawn with replacement. List all possible outcomes where the balls are of different colours.
- M8.** A four-digit PIN is formed using the digits 1, 2, 3, 4 without repetition. List all possible outcomes where the first digit is 1.
- M9.** A committee of 2 people is to be selected from 3 candidates: Alice, Bob, and Carol. List all possible outcomes.
- M10.** A fair die is rolled three times. List all possible outcomes where the sum of the three rolls is 4.