

Max's Coordinate Quest

Learning objective: To identify, describe, and represent the position of a shape following a reflection or translation, and to plot coordinates in the first quadrant.

Help Max the monkey navigate his jungle playground by plotting coordinates and solving movement puzzles on the grid.

Word bank: x-axis · y-axis · coordinate · origin · translation · quadrant · horizontal · vertical

1. Max is standing at the origin (0, 0). He jumps 4 units to the right and 3 units up. Write the coordinate of Max's new position. (1 mark)

2. A banana is located at (2, 5). Max is at (2, 1). Describe the translation Max needs to make to reach the banana using the words 'units up'. (1 mark)

3. Plot the following points on a grid: A(1, 2), B(1, 4), and C(4, 2). Join them to make a triangle. If you translate this triangle 3 units to the right, what will be the new coordinate for point A? (2 marks)

4. Max finds a treasure map. The first clue is at (0, 8), the second is at (5, 8), and the third is at (5, 3). If these points form three corners of a square, what is the coordinate of the fourth corner? (2 marks)

5. Max buys a map for £4.50 and a compass for £3.25. If he plots his starting point at (1, 1) and moves 6 units right and 7 units up, what is the coordinate of his destination? (2 marks)

Draw: Draw a 10x10 coordinate grid. Plot a house at (2, 2) and a park at (8, 7). Draw a path connecting the house to the park that only moves horizontally and vertically.



Extension challenge: Imagine a shape on your grid. Write down the coordinates of its vertices. Now, translate that shape 4 units right and 2 units down. Write the new coordinates and check if the shape's size has changed.