

Max's Coordinate Treasure Map

Learning objective: To describe positions on the full coordinate grid (all four quadrants) and plot coordinates accurately.

Max the monkey has hidden four pieces of fruit across a coordinate grid to create a healthy snack trail. Look at the grid and identify the coordinates for each item. Then, follow the instructions to plot new items on the map. Remember: the x-axis (horizontal) comes before the y-axis (vertical) in your coordinate pairs (x, y).

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

1. Max has placed a banana at (-3, 2), an apple at (4, 5), a pear at (2, -4), and a plum at (-5, -3). Describe which quadrant each piece of fruit is located in. (4 marks)

2. Max wants to add a bunch of grapes exactly halfway between the banana (-3, 2) and the apple (4, 5) on the x-axis. What would the x-coordinate be? (2 marks)

3. If you move the pear from (2, -4) three units to the left and two units up, what is its new coordinate? (2 marks)

4. Max draws a straight line connecting the plum (-5, -3) and the apple (4, 5). Does this line pass through the origin (0, 0)? Explain how you know. (3 marks)

5. A surprise treat is located at the reflection of the banana (-3, 2) across the y-axis. What are the coordinates of the treat? (2 marks)

Draw: Draw a set of axes ranging from -6 to 6 on both the x and y axes. Plot the four items Max has hidden (banana, apple, pear, plum) as dots, labelling them with their names and coordinates.



Extension challenge: Imagine Max draws a square on the grid. If three of the corners are at (1, 1), (1, 4), and (4, 1), what are the coordinates of the fourth corner to complete the shape?