Cartesian plane topic test

12 questions | 19 marks | 30 minutes

Coordinate reading, plotting and movement on equal-unit grids.

Equivalent correct methods earn the corresponding marks.

1. Name the horizontal coordinate axis. [1 mark]

The y-axis is vertical.

Answer: The x-axis.

2. Give the coordinates of the origin. [1 mark]

The axes meet where both coordinates are zero.

Answer: $(0, 0)$

3. Which quadrant contains $(-4, -2)$? [1 mark]

Both coordinates are negative.

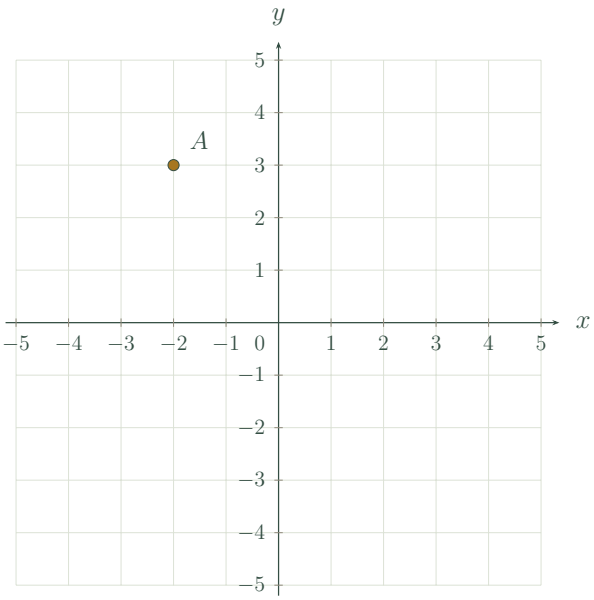
Answer: Quadrant III.

4. A point is $(0, 4)$. Name its axis and explain whether it is inside a quadrant. [2 marks]

$x = 0$ places it on the y-axis boundary.

Answer: It is on the y-axis and not inside a quadrant.

5. Read the coordinates of A. [1 mark]

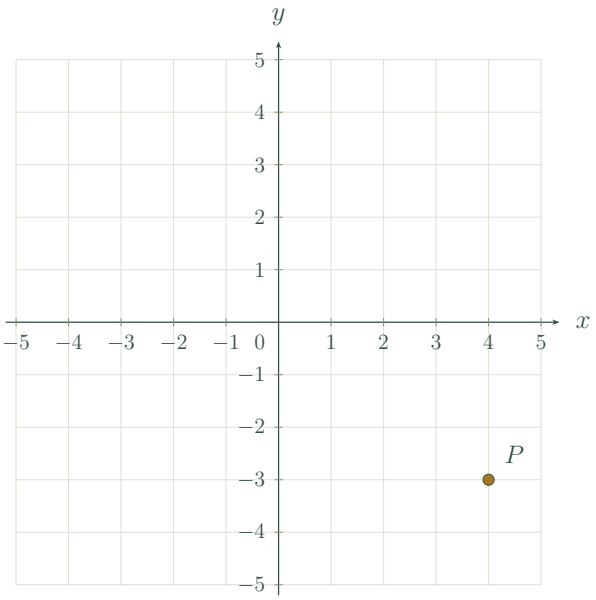


Each grid interval is 1 unit

A is 2 left and 3 up from the origin.

Answer: $(-2, 3)$

6. Plot $P = (4, -3)$ on the grid. [2 marks]



Each grid interval is 1 unit

Move horizontally first, then vertically.

Answer: P is 4 right and 3 down.

7. For the point $(2, -1)$, a student writes $(-1, 2)$. Explain why these are different points. [2 marks]

The first value is x and the second is y.

Answer: The coordinates have been swapped. $(2, -1)$ is right/down; $(-1, 2)$ is left/up.

8. Start at $(-3, 2)$. Move 4 right and 5 down. Find the final coordinates. [2 marks]

$-3 + 4 = 1;\ 2 - 5 = -3.$

Answer: $(1, -3)$

9. Reflect $(-2, -4)$ in the x-axis. [1 mark]

Keep x and reverse y.

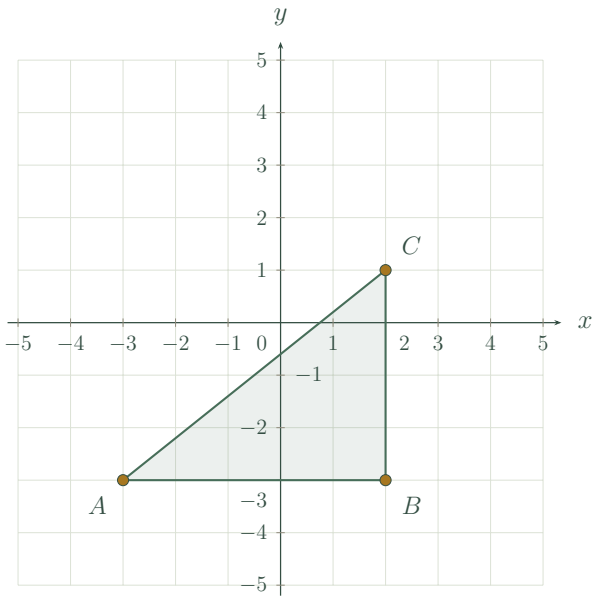
Answer: $(-2, 4)$

10. Reflect $(4, 1)$ in the y-axis. [1 mark]

Reverse x and keep y.

Answer: $(-4, 1)$

11. Plot $A = (-3, -3)$, $B = (2, -3)$, $C = (2, 1)$. Join A-B-C-A. [3 marks]



Each grid interval is 1 unit

Use each ordered pair without swapping it.

Join the vertices in order.

Answer: Correctly plotted triangle; AB is horizontal and BC is vertical.

12. A point moves from $(-4, 2)$ to $(1, -2)$ using one horizontal slide and one vertical slide. Describe the two moves. [2 marks]

Horizontal change is from -4 to 1: $+5$.

Vertical change is from 2 to -2: -4.

Answer: 5 units right and 4 units down.