# PLOTTING COORDINATES IN FOUR QUADRANTS

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

## SPIRAL

S1.
1/2 + 1/4

S2.
0.5 + 0.25

S3.
If a=3 and b=2, what is 2a + b?

S4.
3/4 of 12

## DEVELOP

CORBETT VIDEO: https://youtu.be/RS_HSbad_eA

1.
A point is 2 units right and 5 units up from the origin. What are its coordinates?

Step 1: The x-coordinate is horizontal distance. Right is positive, so x=2
Step 2: The y-coordinate is vertical distance. Up is positive, so y=5
Step 3: Coordinates are written as (x,y)
Step 4: The point is (2,5)

2.
A point is 6 units right and 3 units down from the origin. What are its coordinates?

Step 1: Right movement gives positive x: x=6

Step 2: Down movement gives negative y: y=-3

Step 3: Combine coordinates

Step 4: The point is (6,-3)

3.

A point is 4 units left and 1 unit down from the origin. What are its coordinates?

Step 1: Left movement gives negative x: x=-4

Step 2: Down movement gives negative y: y=-1

Step 3: Write as ordered pair

Step 4: The point is (-4,-1)

4.

A point is 3 units left and 2 units up from the origin. What are its coordinates?

Step 1: Left means negative x: x=-3

Step 2: Up means positive y: y=2

Step 3: Combine x and y values

Step 4: Coordinates are (-3,2)

5.

The point (3,4) is reflected in the x-axis. What are the coordinates of the reflected point?

Step 1: Reflection in x-axis keeps x-coordinate same

Step 2: y-coordinate changes sign: positive becomes negative

Step 3: Original y=4 becomes y=-4

Step 4: New coordinates are (3,-4)

6. A point is 1 unit left and 3 units up from the origin. What are its coordinates?

7. A point is 2 units right and 4 units down from the origin. What are its coordinates?

8. Reflect the point (3,2) in the x-axis

9. Reflect the point (-4,1) in the y-axis

10. What are the coordinates of a point on the x-axis, 5 units left of the origin?

11. What are the coordinates of a point on the y-axis, 3 units below the origin?

12. The point (2,5) moves 3 units right and 2 units down. What are its new coordinates?

13. The point (-3,-2) moves 1 unit left and 4 units up. What are its new coordinates?

14. Reflect the point (0,6) in the x-axis

15. The point (4,-1) is reflected in the y-axis. What are the new coordinates?

## APPLY

A1.
A drone starts at (1,2). It flies 3 metres east and 4 metres north. What are its new coordinates?

A2.
A boat is at (-3,4). It sails 2 metres west and 3 metres south. What are its new coordinates?

A3.
A bird is at (5,-2). Its reflection in a lake (x-axis) is seen. What are the reflection's coordinates?

A4.
A car starts at the origin. It drives 4 miles west and 3 miles north. What are its coordinates?

A5.
A treasure is buried 2 units left and 1 unit down from (3,4). What are its coordinates?