

Work through these pages first, reading the information and having a go at the questions. Look carefully at how they have worked out the co-ordinates in the 'share' section to check you understand what they have done.

Don't forget that we always give the x coordinate first, and then the y. 'Along the corridor and then up (or down) the stairs.'

Plotting coordinates

Discover

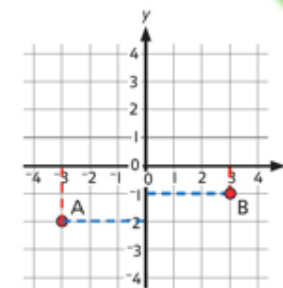
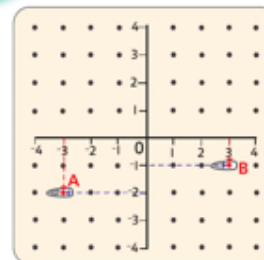


- 1** a) What are the coordinates of the ships A and B?
b) Ambika guesses that Reena has a ship at the coordinates $(-2, 3)$.
Where is this point on the grid?

Share

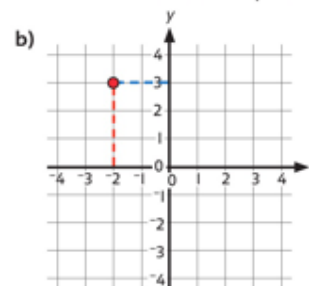
- a) I think coordinates can also have negative values.

I remember that I should read the x-axis coordinate first, and then the y-axis coordinate.



Ship A is in line with -3 on the x-axis and it is in line with -2 on the y-axis. The coordinates of ship A are $(-3, -2)$.

Ship B is in line with 3 on the x-axis and it is in line with -1 on the y-axis. The coordinates of ship B are $(3, -1)$.



We say a coordinate grid like this has four **quadrants**. Coordinate grids that show just positive values have only one quadrant.

Point $(-2, 3)$ is at -2 on the x-axis and 3 on the y-axis.



Think together

- 1 a) At what coordinates has Liam plotted his ships?

Ship A is at on the x-axis and
it is at on the y-axis.

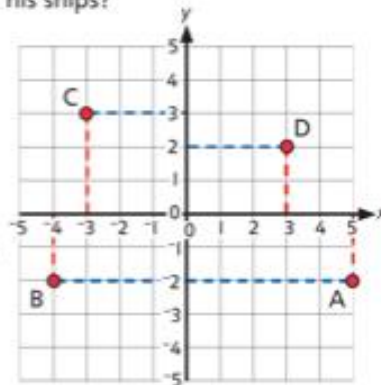
The coordinates of ship A are
(,).

The coordinates of the other ships are:

Ship B (,)

Ship C (,)

Ship D (,)



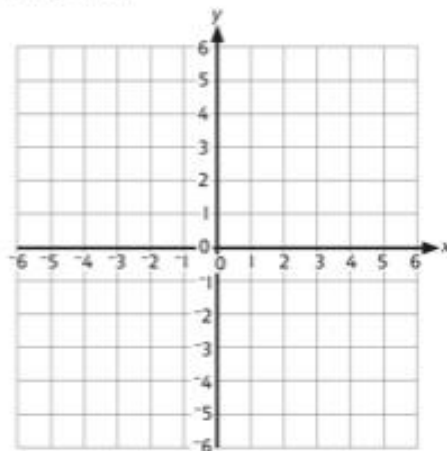
- b) Liam guesses where his partner's ships are.

Guess 1 (-4, 5)

Guess 2 (4, -2)

Guess 3 (-5, -4)

Point to each of his guesses
on the grid.



- 2 Mark says that his points are at:

A(1, -4)

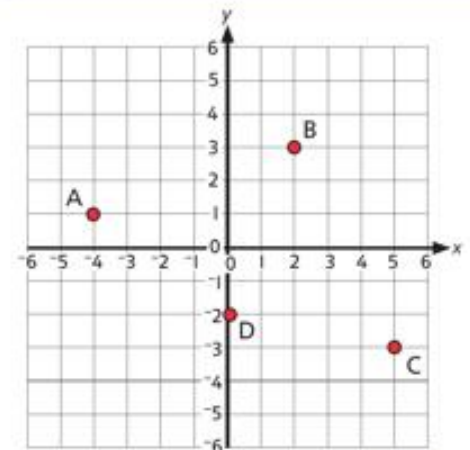
B(2, 3)

C(-5, -3)

D(-2, 0)

Three of his coordinates
are wrong. Can you work
out which ones?

What mistakes did Mark make?



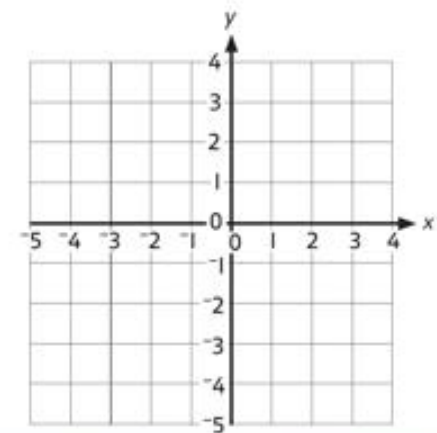
- 3 Maisy knows her partner's four points make a rectangle.

Which of the coordinates below are the coordinates of
Maisy's partner's points?

(2, 1) (1, -1) (2, -1)

(1, 1) (3, -2) (2, -3)

(-1, 1) (-1, 2) (4, 1)



CHALLENGE

Now you have two options for your task –

Number 1 (aka the bog-standard option)

Turn in your Power Maths Book A to page 158 and work your way through as much as you can of pages 158, 159 and 160. Keep looking back at the teaching above to help you if you get stuck. You can also use your maths revision guide to have a look at some extra info for this. And, if you're really stuck, you can send me an email on Purple Mash or a message on dojo.

Number 2 (aka the much better option)

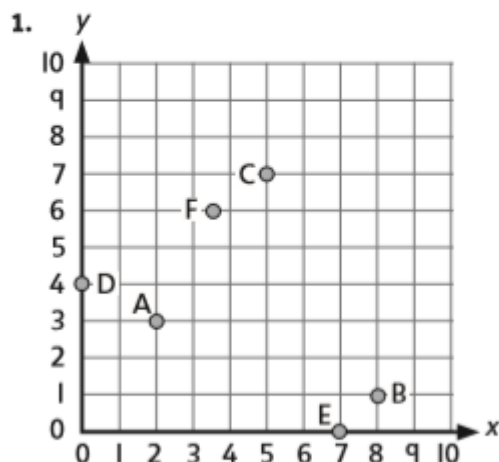
Have a look at the blog on Purple Mash for some more ideas about how to do some practical activities around plotting co-ordinates.

Here are the answers to yesterday's work:

Unit 6: Geometry – position and direction

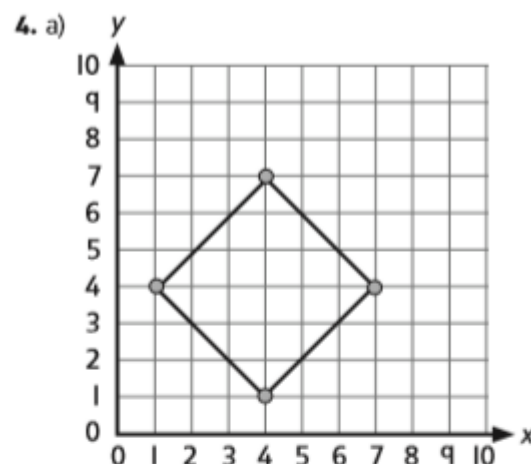
Lesson 1: Plotting coordinates in the first quadrant

→ pages 155–157



2. A (4,7) D (2,5) G (10,5)
B (6,5) E (7,7) H (8,4)
C (4,3) F (9,7) I (6,5)

3. a) (4,10) and (1,10) or (4,4) and (1,4)
b) (8,4) and (8,2) or (0,4) and (0,2)



- b) The vertices of the square are:

(1,4)
(4,7)
(7,4)
(4,1)

5. Point A (2,4) Point D (11,1)
Point B (8,7) Point E (8,1)
Point C (11,4)

Reflect

It tells me that the point lies on one of the axes. If the zero is the first coordinate, then the point lies on the y-axis; if the zero is the second coordinate, then the point lies on the x-axis.