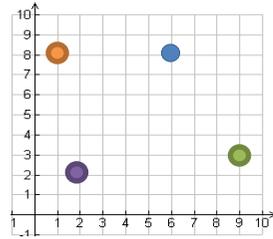
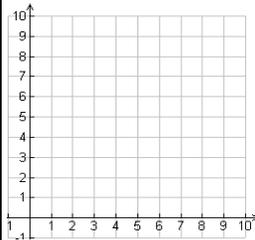


Describe positions on a 2D grid as coordinates in the first quadrant.

- Write the co-ordinates of the coloured dots.

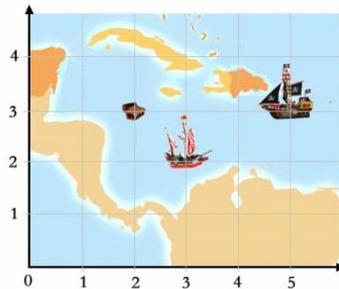


- Draw the shapes on the co-ordinates given.

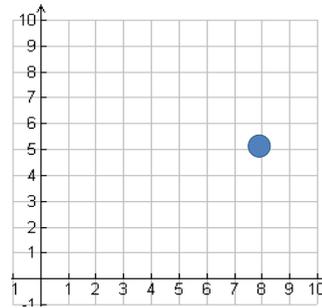


- (2, 6)
- (6, 2)
- ▲ (9, 0)

- Write the co-ordinates of the ships on the map.



- Point A is marked on the grid.



Henry says that point A is at (5,8)
Aisha says that point A is at (8,5)

Who is correct? Can you explain what mistake one of the children has made?

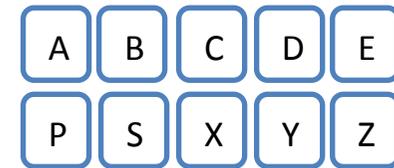
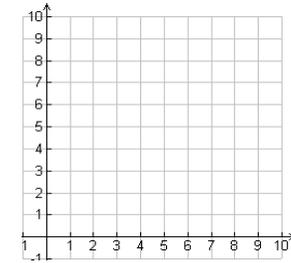
- Junaid says:

You can say either number first in co-ordinates, it doesn't matter.

Do you agree with Junaid?

Explain why.

- Can you place the letters below on the grid by following the rules?



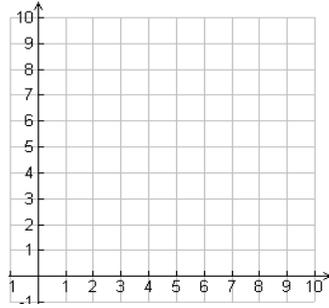
The letters at (1,1), (1,2) and (1,3) are all symmetrical about a vertical line.
The letter at (8,3) is not symmetrical and is made of straight and curved lines.
The letters at (1,1), (2,1) and (5,1) are symmetrical about a horizontal line.
The letter at (5,1) consists of just straight lines.
The letters at (5,3) and (2,0) consist of just curved lines.
The letters at (5,3), (5,2) and (5,1) are consecutive in the alphabet.
The letters at (0,2) and (1,2) are at the two ends of the alphabet.

Position and Direction

Plot specified points and draw sides to complete a given polygon.

- Plot the points on the grid below to make a 2d shape.

(2,9) (2,2) (5,9) (5,2)



Tom draws a shape on the same grid using these co-ordinates.

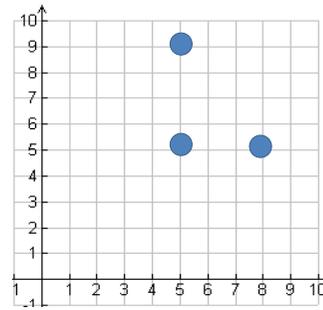
(2,9) (2,6) (5,9) (5,6)

What is the same and what is different about your shape and Tom's shape?

- Write co-ordinates for a friend to plot that make the following shapes:
 - Triangle
 - Trapezium
 - Rhombus

- Henry plots three points on a grid.

Aisha says "You can make a square if you mark another point at (8, 9)"



Do you agree with Aisha? Explain your answer.

- Here are the co-ordinates of corners of a rectangle that has width of 4.

(7, 2) and (14, 2)

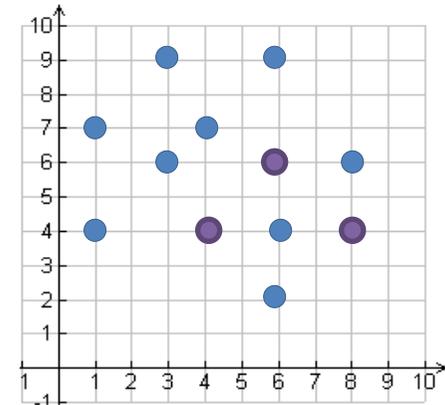
What are the other two co-ordinates?

- Plot the points given and join them to draw a letter of the alphabet.

Start: (2, 2) → (2, 8) → (4, 8)
 → (4, 6) → (6, 6) → (6, 8)
 → (8, 8) → (8, 2) → (6, 2)
 → (6, 4) → (4, 4) → (?, ?)

What is the final co-ordinate needed to complete the letter?

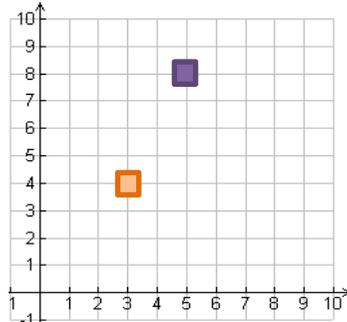
- There are 12 points marked on the grid that are all corners of squares. Can you work out where the 4 squares are? The purple dots are corners of more than one square.



Position and Direction

Describe movements between positions as translations of a given unit to the left/ right and up/ down.

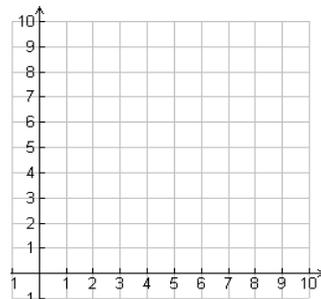
- Describe the movement of the orange square to the purple square.



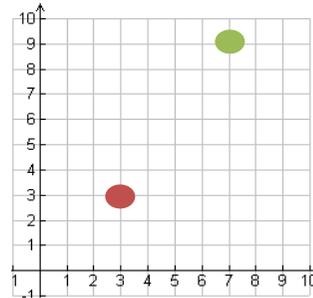
- The coordinates of point A are (3,2). Point B is 2 squares left and 7 squares up from point A.

What are the co-ordinates of point B?

Plot point A and point B on the grid.



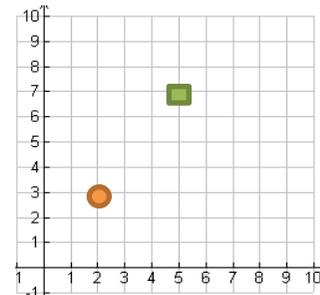
- Describe the movement from the green circle to the red circle.



Describe the movement from the red circle to the green circle.

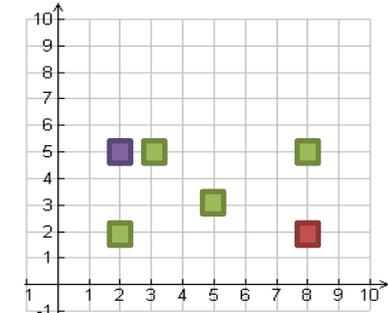
What do you notice about your descriptions?

- Keeley has described the movement of the orange circle to the green square as 3 squares to the left and 4 squares down.



Do you agree? Explain why.

- Write a set of instructions to move the red square to the purple square without going through any green squares.



- Write a set of instructions to move from the yellow circle to the purple circle while passing through all the other coloured circles. Compare your instructions with a friend. How are they the same? How are they different?

