


Let's learn

In a full coordinate grid, the second quadrant appears below the first quadrant.



You need:

- squared paper
- ruler 

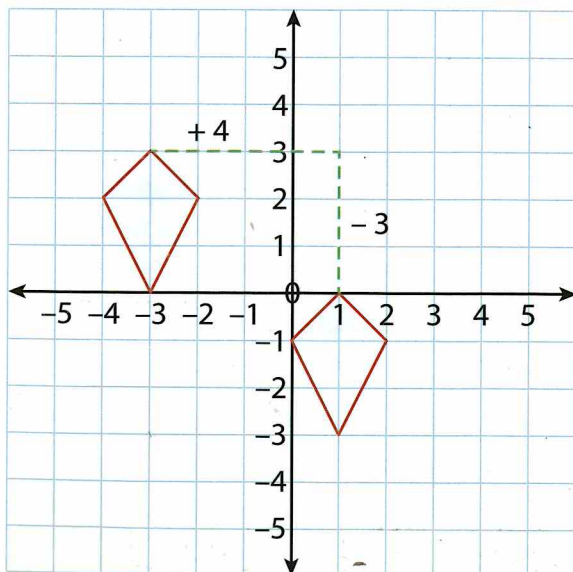
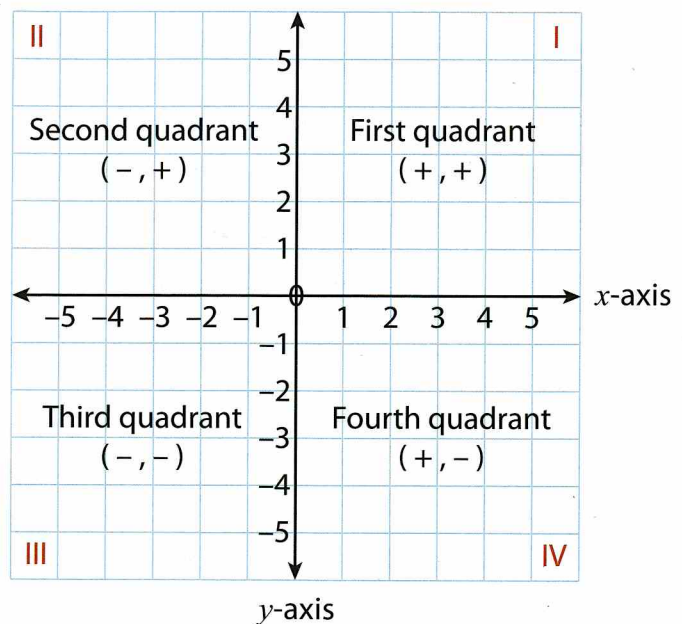
No, you're wrong! The quadrants are numbered in an anti-clockwise direction. The ancient Babylonians decided the direction based on astronomy. You just have to remember it!

Using four quadrants

The point $(0, 0)$ is called the origin.

Values on the x -axis to the left of the origin are negative. This is the same as on a number line.

On the y -axis, values above the origin are positive and below are negative.



Translating using a full coordinate grid

The kite in the second quadrant has been translated using $+4$ in an x direction and -3 in a y direction.

$$(-3, 3) (1, 0)$$

$$(-4, 2) (0, -1)$$

$$(-3, 0) (1, -3)$$

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

Each point has moved 4 squares to the right (in a positive direction) and 3 squares down (in a negative direction).

The 2 kites are **congruent** (or identical).

Teacher's Guide

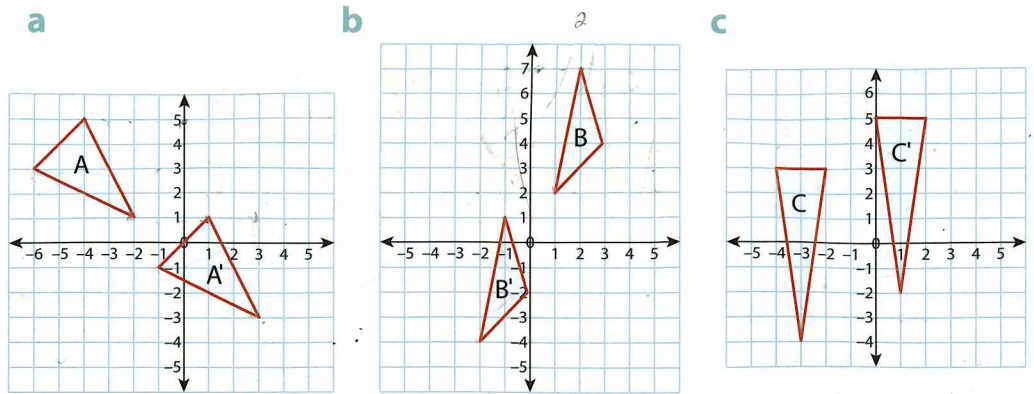


Before working through the *Textbook*, study page 134 of the *Teacher's Guide* to see how the concepts should be introduced. Read and discuss the page with the children. Provide concrete resources to support exploration.

1

Answer.

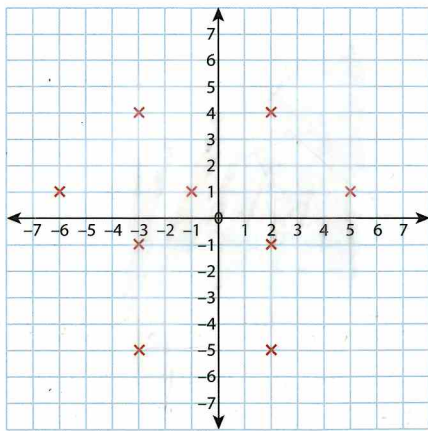
Describe how these shapes have been translated using x and y .



2

Answer.

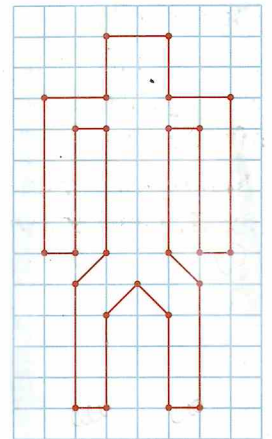
Use the coordinates marked on the quadrants to make a kite, square, trapezium and rectangle. Write down their coordinates. (Some coordinates are used more than once.)



3

Draw.

Draw the outline of a simple robot on a coordinate grid. Use all 4 quadrants (+10 to -10). Write a list of the coordinates in the order they should be joined.

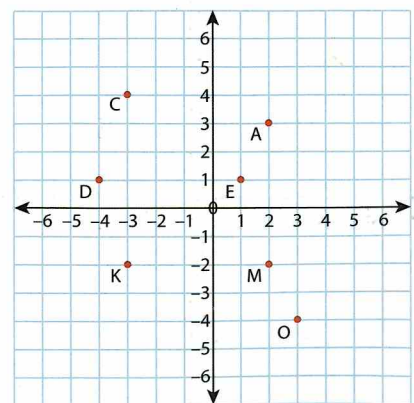


Challenge your partner to plot the coordinates and draw your robot.

4

Think.

Use the letters at the coordinates to crack this message. Write your own message of 5 or more words. You will need to add more coordinates for other letters.



(2, -2)	(2, 3)	(-3, -2)	(1, 1)		(2, 3)		(-3, 4)	(3, -4)	(-4, 1)	(1, 1)
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