Varied Fluency
Step 1: The First Quadrant

National Curriculum Objectives:

Mathematics Year 6: (6P2) Draw and translate simple shapes on the coordinate plane, and reflect them in the axes
Mathematics Year 6: (6P3) Describe positions on the full coordinate grid (all four quadrants)

Differentiation:

Developing Questions to support reading, writing and plotting coordinates on a quadrant. Includes 5 x 5 grids with 3 or 4 points plotted to create triangles and squares.
Expected Questions to support reading, writing and plotting coordinates on a quadrant. Includes 8 x 8 grids with 5 or 6 points plotted to create pentagons and hexagons. Includes irregular pentagons.
Greater Depth Questions to support reading, writing and plotting coordinates on a quadrant. Includes 8 x 8 grids with 6 or more points plotted to create heptagons and octagons. Includes irregular shapes.

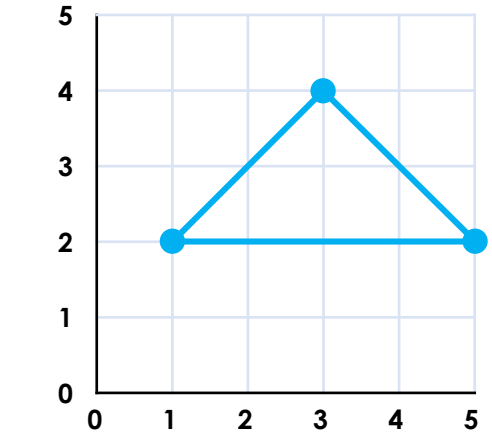
More Year 5 and Year 6 Position and Direction resources.

Did you like this resource? Don't forget to review it on our website.

The First Quadrant

1a. True or false? The coordinates of the triangle are:

(1, 2) (3, 4) (5, 2)



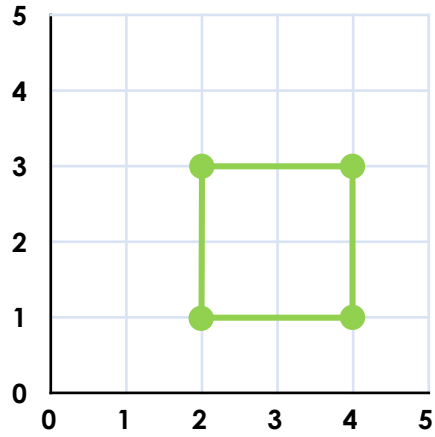
D

6 VF

The First Quadrant

1b. True or false? The coordinates of the square are:

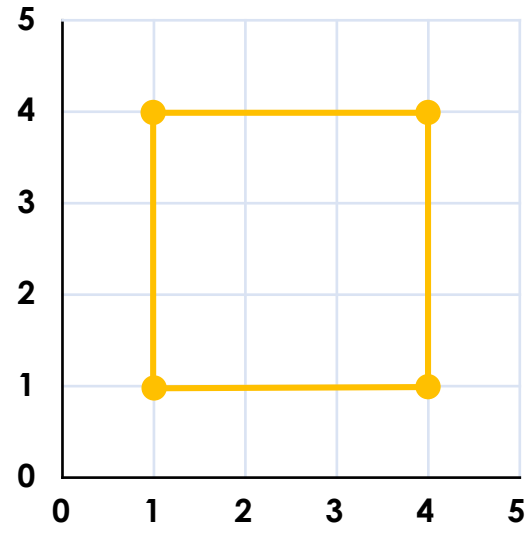
(1, 2) (3, 2) (1, 4) (3, 4)



D

6 VF

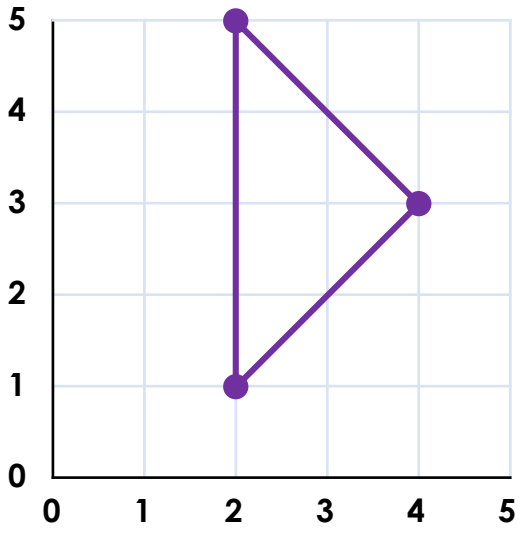
2a. Write the coordinates of the square.



D

6 VF

2b. Write the coordinates of the triangle.

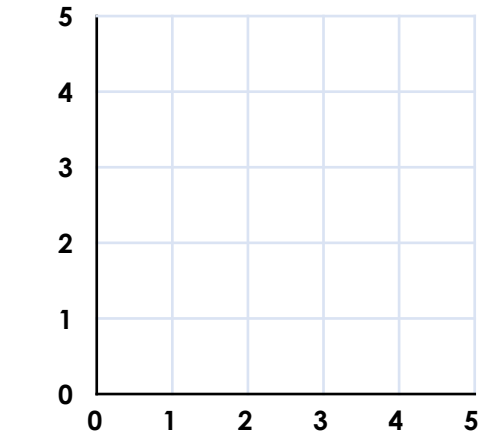


D

6 VF

3a. Plot the coordinates and join them to create a triangle.

(4, 2) (4, 4) (3, 3)

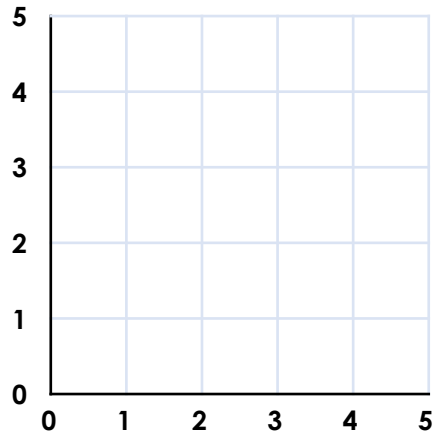


D

6 VF

3b. Plot the coordinates and join them to create a square.

(3, 1) (5, 1) (3, 3) (5, 3)



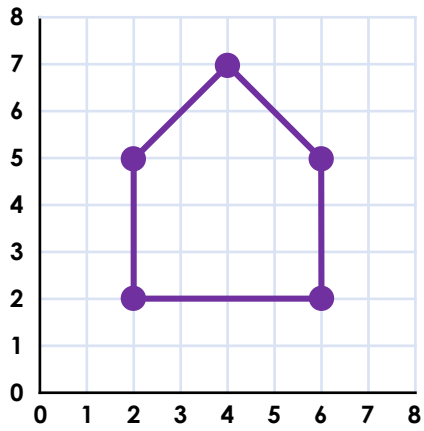
D

6 VF

The First Quadrant

4a. True or false? The coordinates of the pentagon are:

(7, 4) (5, 2) (5, 6) (2, 2) (2, 6)

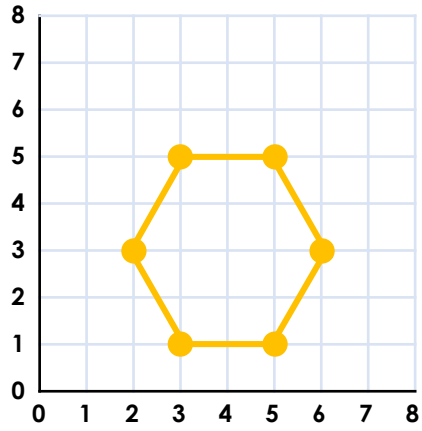


E

The First Quadrant

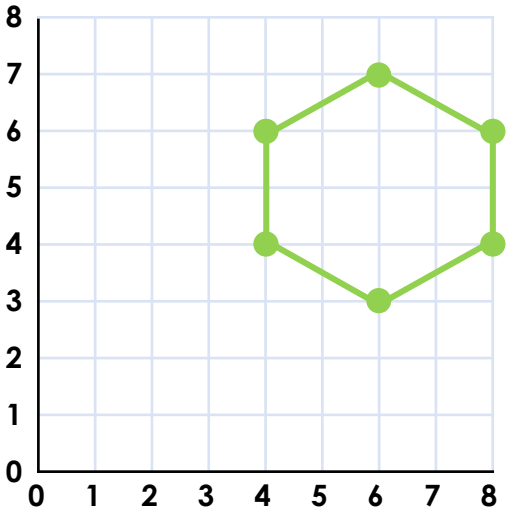
4b. True or false? The coordinates of the hexagon are:

(2, 3) (3, 5) (3, 1) (5, 5) (5, 1) (6, 3)



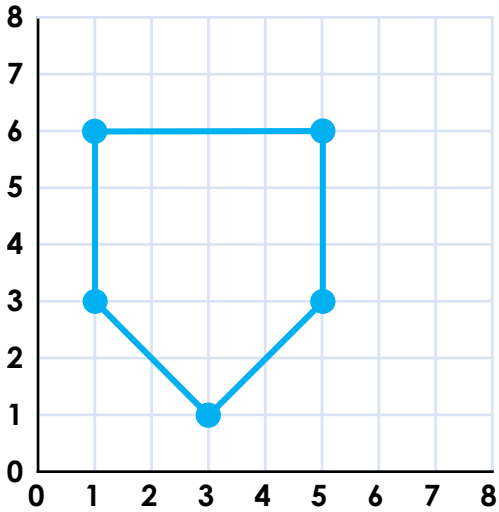
E

5a. Write the coordinates of the hexagon.



E

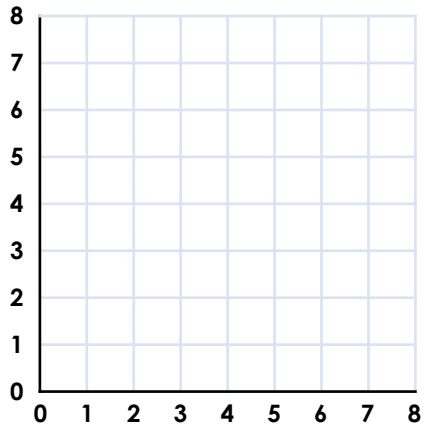
5b. Write the coordinates of the pentagon.



E

6a. Plot the coordinates and join them to create a pentagon.

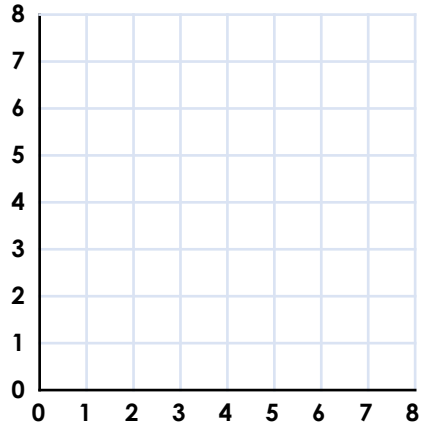
(8, 6) (4, 6) (4, 3) (6, 1) (8,3)



E

6b. Plot the coordinates and join them to create a hexagon.

(6, 8) (4, 7) (4, 5) (6, 4) (8, 5) (8, 7)

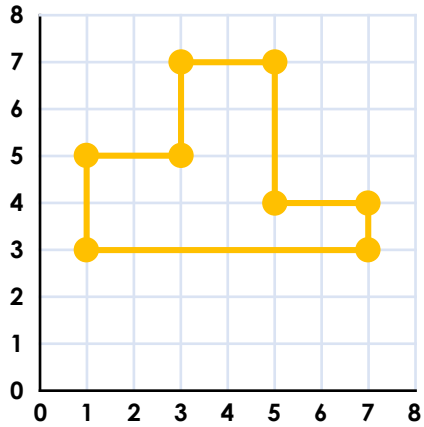


E

The First Quadrant

7a. True or false? The coordinates of the octagon are:

(1, 3) (1, 5) (3, 5) (3, 7)
(7, 5) (5, 4) (4, 7) (7, 3)

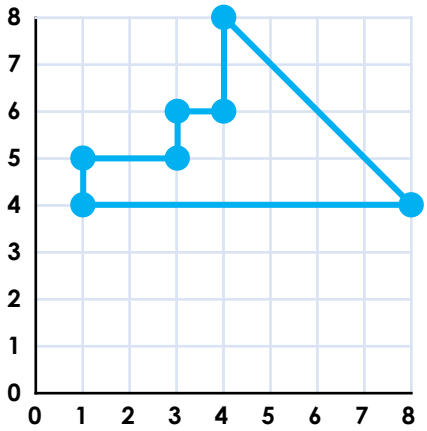


GD

The First Quadrant

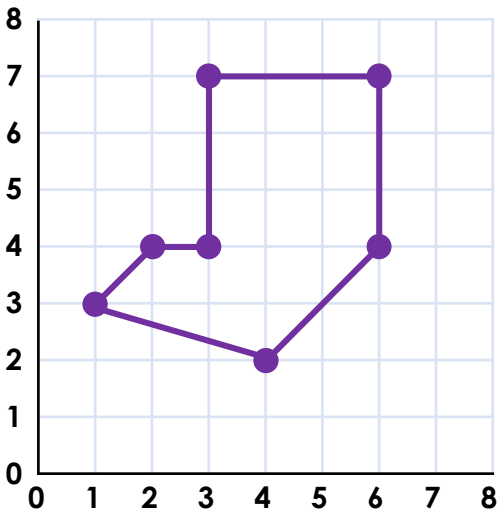
7b. True or false? The coordinates of the heptagon are:

(4, 8) (8, 4) (4, 1) (1, 5)
(3, 5) (6, 3) (4, 6)



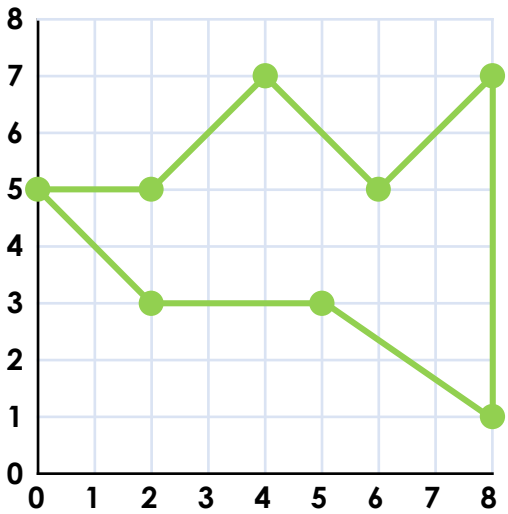
GD

8a. Write the coordinates of the heptagon.



GD

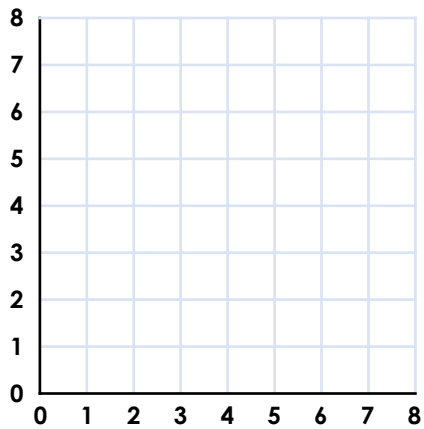
8b. Write the coordinates of the octagon.



GD

9a. Plot the coordinates and join them to create an octagon.

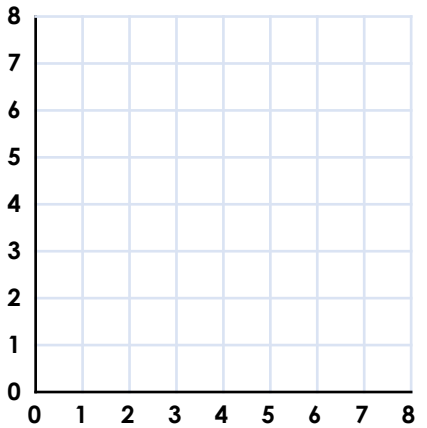
(6, 6) (7, 6) (8, 5) (8, 4)
(7, 3) (6, 3) (5, 4) (5, 5)



GD

9b. Plot the coordinates and join them to create a heptagon.

(2, 3) (4, 5) (6, 5) (8, 3)
(7, 1) (5, 0) (3, 1)



GD

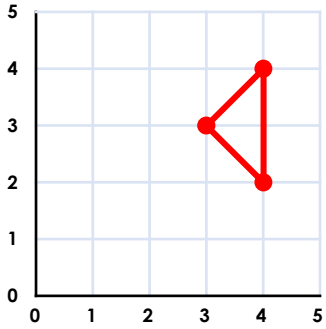
Varied Fluency
The First Quadrant

Developing

1a. True

2a. (1, 1), (1, 4), (4, 4), (4, 1)

3a.

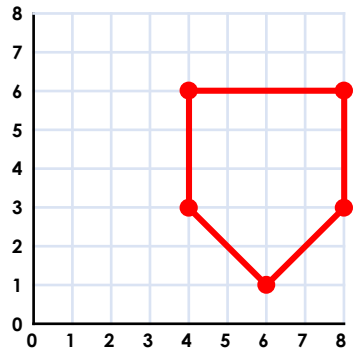


Expected

4a. False, the coordinates of the pentagon are: (2, 2), (2, 5), (4, 7), (6, 5), (6, 2)

5a. (4, 4), (4, 6), (6, 7), (8, 6), (8, 4), (6, 3)

6a.

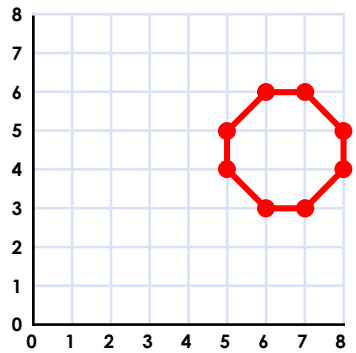


Greater Depth

7a. False, the coordinate (7, 5) should be (5, 7) and the coordinate (4, 7) should be (7, 4)

8a. (1, 3), (2, 4), (3, 4), (3, 7), (6, 7), (6, 4), (4, 2)

9a.



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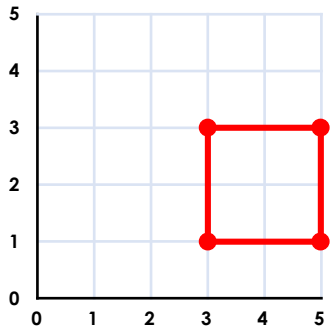
The First Quadrant

Developing

1b. False, the coordinates of the square are: (2, 1), (2, 3), (4, 3), (4, 1)

2b. (2, 1), (2, 5), (4, 3)

3b.

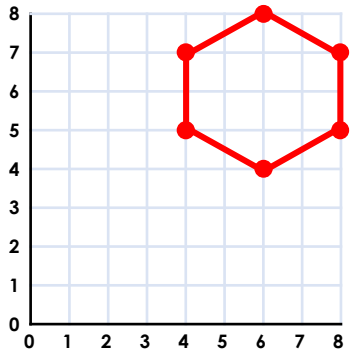


Expected

4b. True

5b. (3,1), (1, 3), (1, 6), (5, 6), (5, 3)

6b.



Greater Depth

7b. False, the coordinate (4, 1) should be (1, 4) and the coordinate (6, 3) should be (3, 6)

8b. (0, 5), (2, 5), (4, 7), (6, 5), (8, 7), (8, 1), (5, 3), (2, 3)

9b.