

# Homework/Extension

## Step 1: Position in the First Quadrant

### National Curriculum Objectives:

Mathematics Year 5: (5P2) [Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed](#)

### Differentiation:

Questions 1, 4 and 7 (Varied Fluency)

**Developing** Decide which child is correct by reading and writing coordinates, using up to 4 points, all points plotted on a 5x5 grid, using 1:1 scale.

**Expected** Decide which child is correct by reading and writing coordinates, using up to 6 points, all points plotted on a 10x10 grid, using 1:1 scale.

**Greater Depth** Decide which child is correct by reading and writing coordinates, using up to 6 points, all points plotted on a 10x10 grid, using varying scales with some points plotted between increments.

Questions 2, 5 and 8 (Varied Fluency)

**Developing** Plot coordinates to identify the shape, using up to 4 points, all points plotted on a 5x5 grid, using 1:1 scale.

**Expected** Plot coordinates to identify the shape, using up to 6 points, all points plotted on a 10x10 grid, using 1:1 scale.

**Greater Depth** Plot coordinates to identify the shape, using up to 6 points, all points plotted on a 10x10 grid, using varying scales with some points plotted between increments.

Questions 3, 6 and 9 (Reasoning and Problem Solving)

**Developing** Write the possible coordinates that could be used to plot a given shape, using up to 4 points, all points plotted on a 5x5 grid, using 1:1 scale.

**Expected** Write the possible coordinates that could be used to plot a given shape, using up to 6 points, all points plotted on a 10x10 grid, using 1:1 scale.

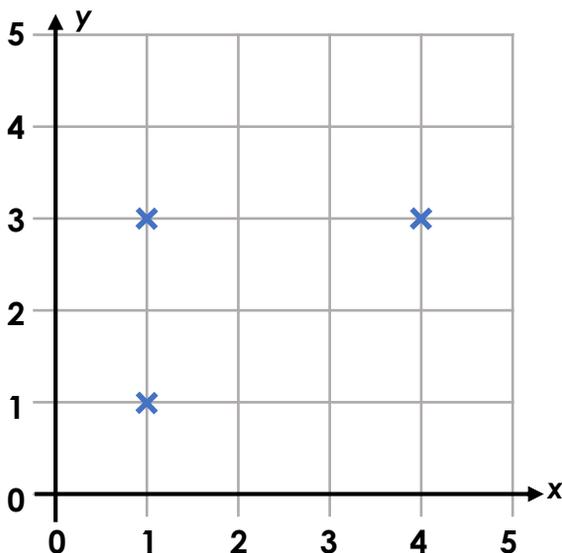
**Greater Depth** Write the possible coordinates that could be used to plot a given shape, using up to 6 points, all points plotted on a 10x10 grid, using varying scales with some points plotted between increments.

More [Year 5 Geometry: Position and Direction](#) resources.

Did you like this resource? Don't forget to [review](#) it on our website.

# Position in the First Quadrant

1. Whose coordinates will make a rectangle when they are connected?



George

I will plot my coordinates at (1, 4).



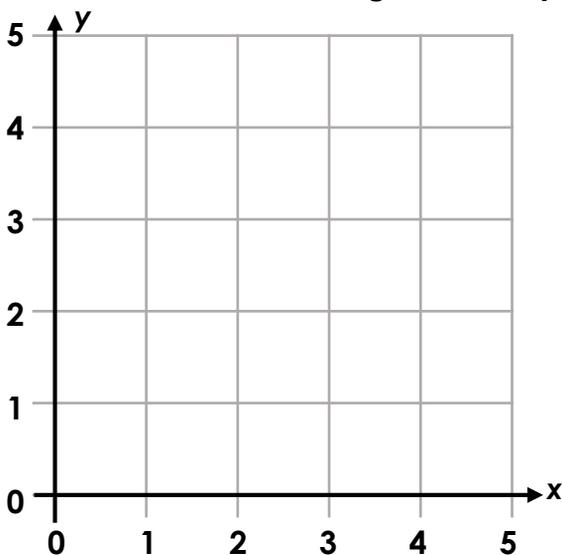
Sobia

I will plot my coordinates at (4, 1).



VF  
HW/Ext

2. Plot the coordinates on the grid. Identify the shape created when they are joined.



(2, 4)

(3, 1)

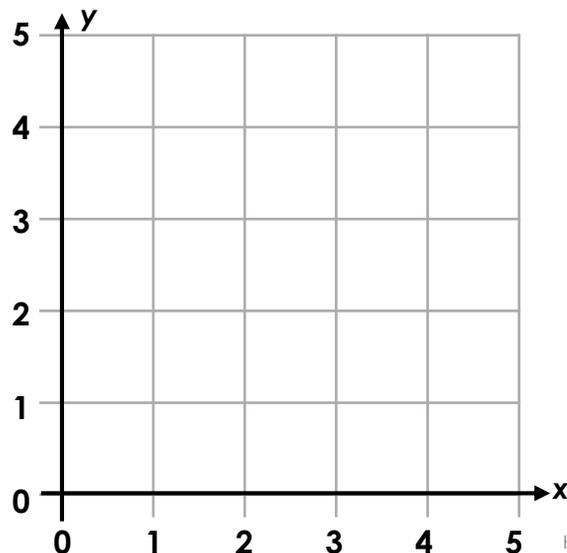
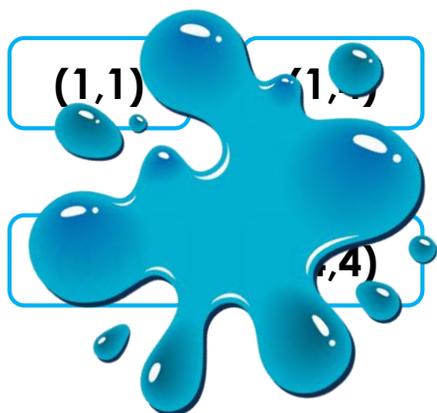
(3, 5)

(4, 4)



VF  
HW/Ext

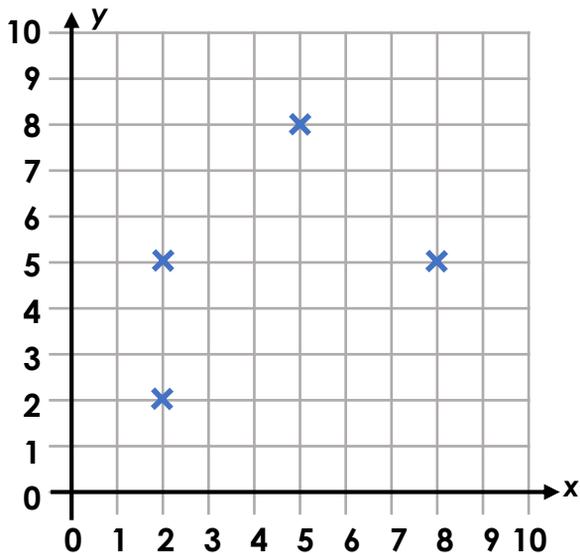
3. Thomas was plotting the points to make a square, but someone spilled paint on his work. What could the missing coordinates be?



RPS  
HW/Ext

# Position in the First Quadrant

4. Whose coordinates will make a pentagon when they are connected?



Harris

I will plot my coordinates at (8, 2).



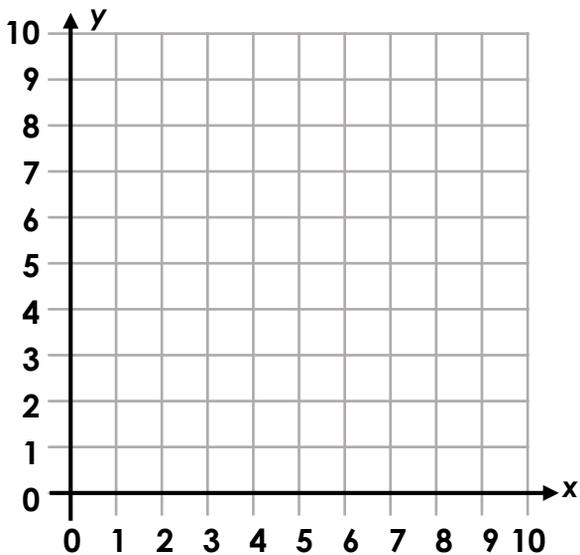
Lily

I will plot my coordinates at (2, 8).



VF  
HW/Ext

5. Plot the coordinates on the grid. Identify the shape created when they are joined.



(3, 3)

(6, 3)

(2, 5)

(7, 5)

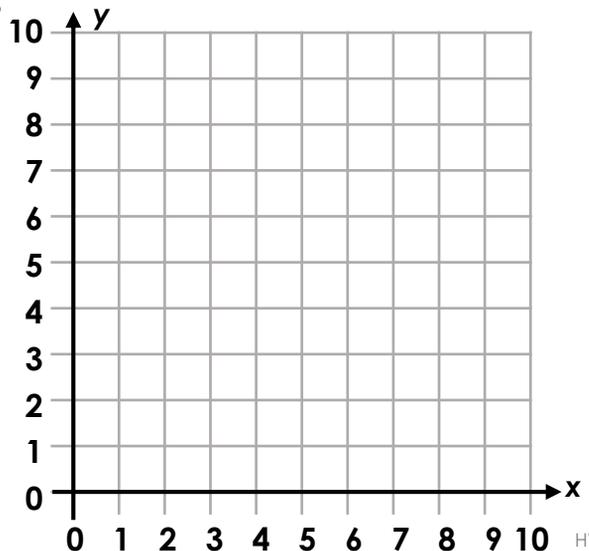
(3, 7)

(6, 7)



VF  
HW/Ext

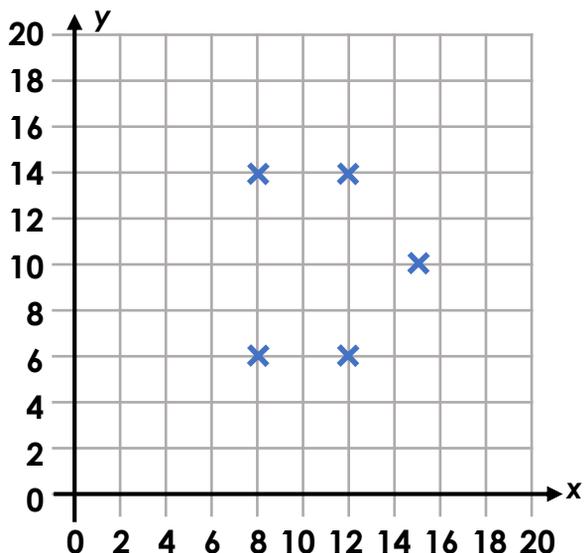
6. Lucy was plotting the points to make a pentagon, but someone spilled paint on her work. What could the missing coordinates be?



RPS  
HW/Ext

# Position in the First Quadrant

7. Whose coordinates will make a symmetrical hexagon when they are connected?



Emily

I will plot my coordinates at (5, 10).



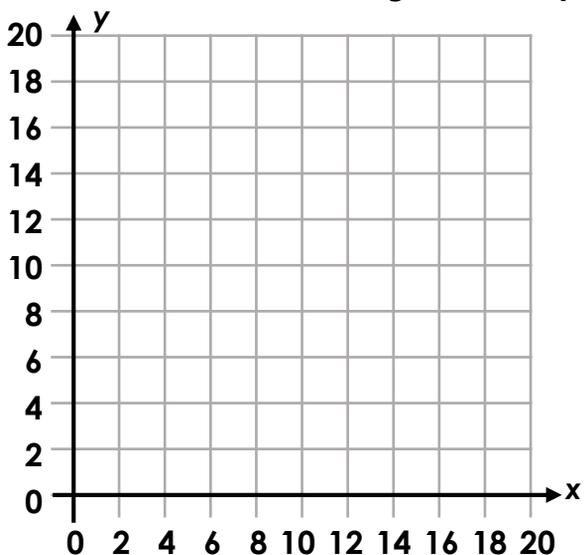
Jack

I will plot my coordinates at (10, 5).



VF  
HW/Ext

8. Plot the coordinates on the grid. Identify the shape created when they are joined.



- (4, 18)
- (14, 18)
- (4, 8)
- (14, 8)
- (9, 3)



VF  
HW/Ext

9. Amber was plotting the points to make a symmetrical hexagon, but someone spilled paint on her work. What could the missing coordinates be?

(5, 5)

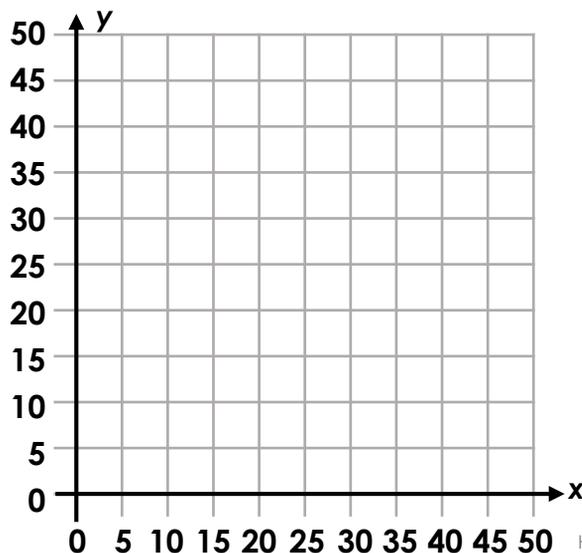
( , 25)

(5, 45)

(5, 5)

(1 , )

( , 15)



RPS  
HW/Ext

## Homework/Extension

### Position in the First Quadrant

#### Developing

1. **Sobia (4,1)**
2. **Kite**
3. **Accept any coordinates that would make a square, for example; (1, 1), (1, 4), (4, 1), (4, 4)**

#### Expected

4. **Harris (8,2)**
5. **Hexagon**
6. **Accept any coordinates that would make a pentagon, for example; (3, 2), (2, 5), (5, 8), (8, 5), (7, 2)**

#### Greater Depth

7. **Emily (5,10)**
8. **Pentagon**
9. **Accept any coordinates that would make a symmetrical hexagon, for example; (5, 5), (35, 25), (5, 45), (45, 5), (15, 25), (45, 45)**