Varied Fluency
Step 2: Draw on a Grid

National Curriculum Objectives:

Mathematics Year 4 : (4P3b) Plot specified points and draw sides to complete a given polygon

Differentiation:

Developing Questions to support plotting coordinates in the first quadrant. Using up to 4 points, all points plotted on a 5x5 grid, using 1:1 scale, including plotting points to create squares and rectangles.

Expected Questions to support plotting coordinates in the first quadrant. Using up to 6 points, all points plotted on a 10x10 grid, using 1:1 scale, including plotting points to create squares, rectangles and right-angled triangles.
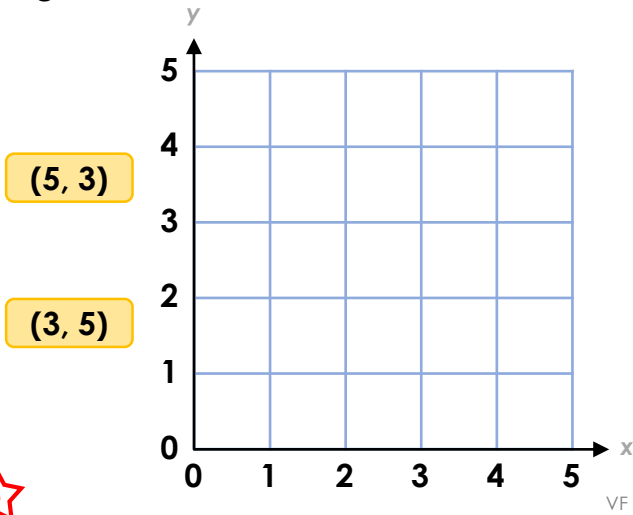
Greater Depth Questions to support plotting coordinates in the first quadrant. Using up to 6 points, all points plotted on a 10x10 grid, using varying scales with some points plotted between increments, including plotting points to create rectangles, right-angled triangles, parallelograms, pentagons and hexagons.

More Year 4 Position and Direction resources.

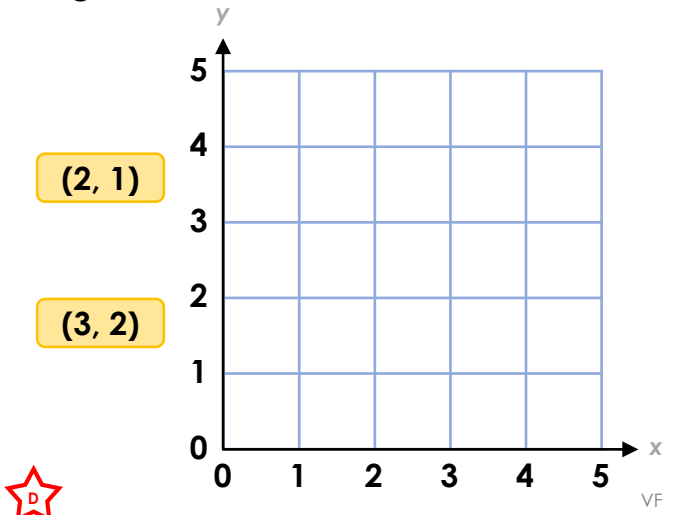Did you like this resource? Don't forget to review it on our website.

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Varied Fluency – Draw on a Grid – Teaching Information

Draw on a Grid

1a. Plot the points for the coordinates on the grid below.
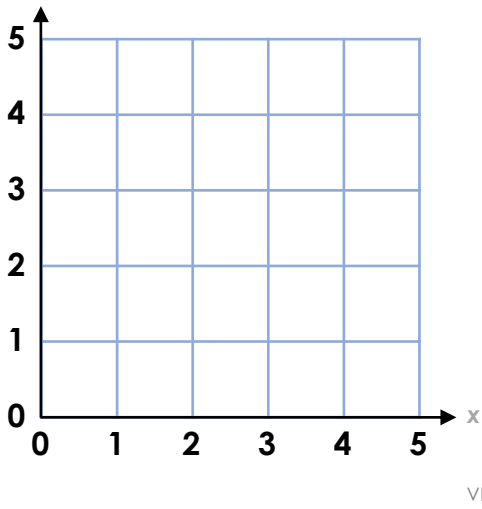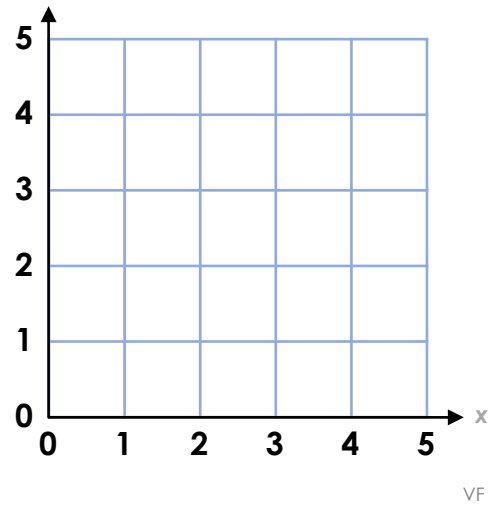
(5, 3)

(3, 5)

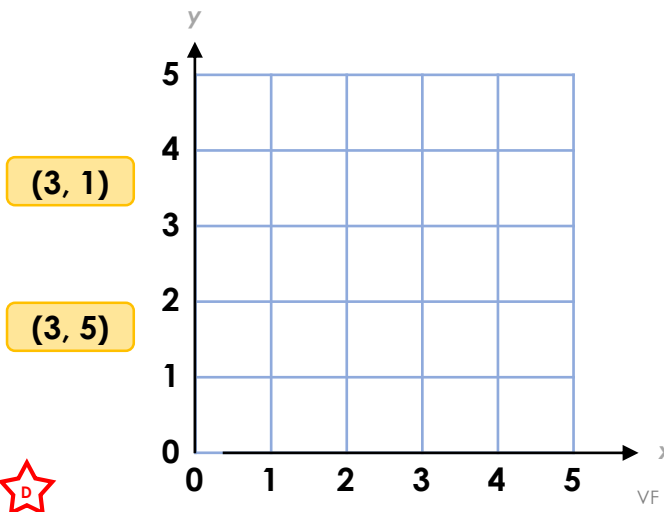**1b.** Plot the points for the coordinates on the grid below.

(2, 1)

(3, 2)

2a. Draw a horizontal line on the grid. Write the coordinates of both ends.
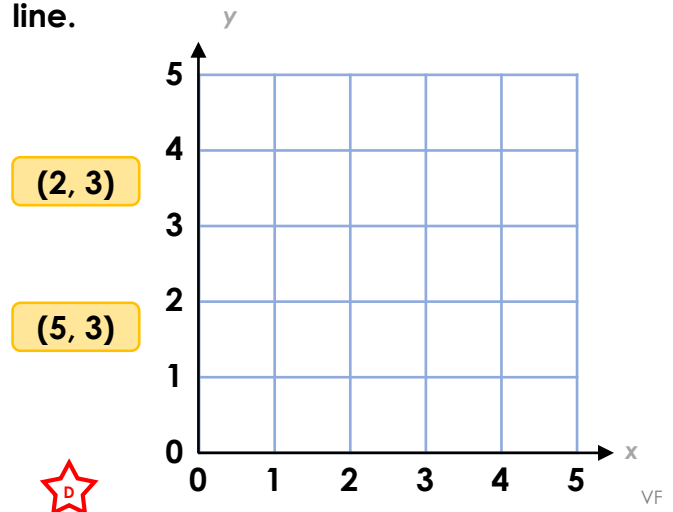
2b. Draw a vertical line on the grid. Write the coordinates of both ends.

3a. True or false? These coordinates can be joined to form a straight vertical line.

(3, 1)

(3, 5)

3b. True or false? These coordinates can be joined to form a straight horizontal line.

(2, 3)

(5, 3)

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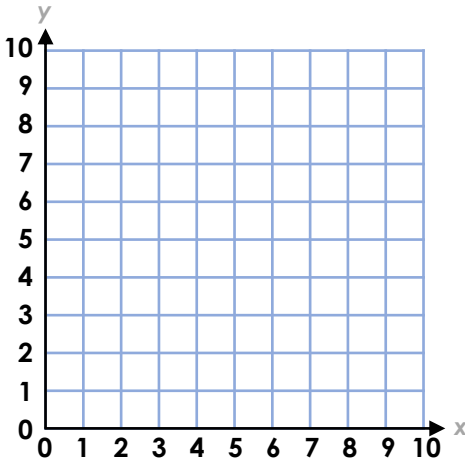**Varied Fluency – Draw on a Grid – Year 4 Developing**

Draw on a Grid

4a. Plot the points for the coordinates on the grid below.
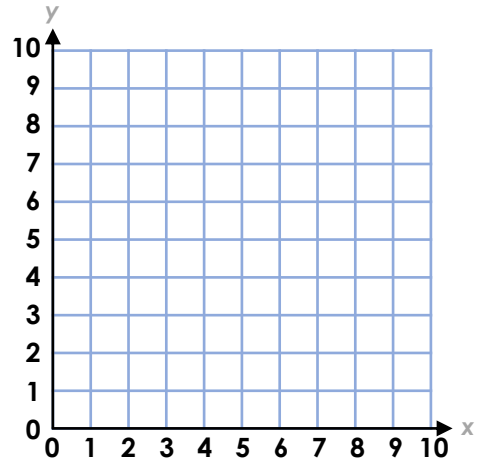
(5, 1)

(1, 4)

(7, 2)

E

VF

Draw on a Grid

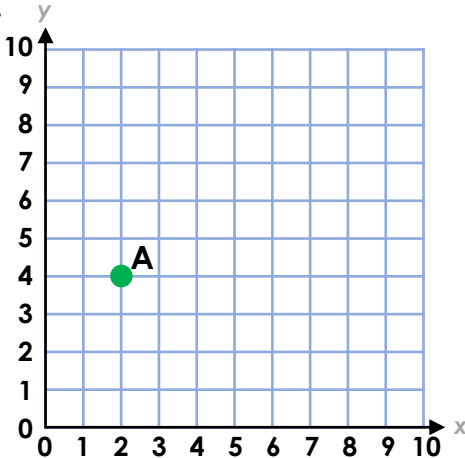**4b.** Plot the points for the coordinates on the grid below.

(7, 9)
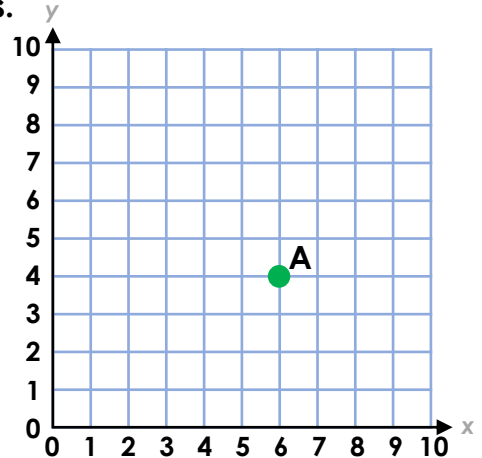
(2, 3)

(6, 1)

E

VF

5a. Draw a right-angled triangle on the grid. Start at point A. Write the coordinates.

A

E

VF

5b. Draw a right-angled triangle on the grid. Start at point A. Write the coordinates.
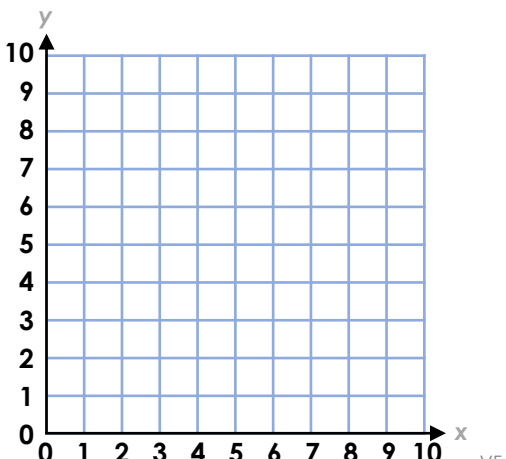
A

E

VF

6a. True or false? These are the coordinates for the vertices of a square.

(1, 1)

(1, 4)

(3, 4)
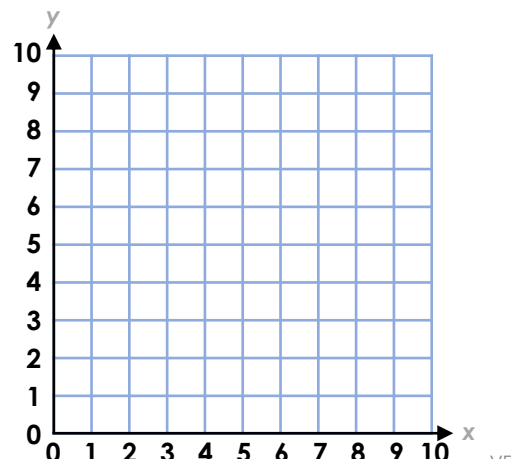
(3, 1)

E

VF

6b. True or false? These are the coordinates for the vertices of a right-angled triangle.
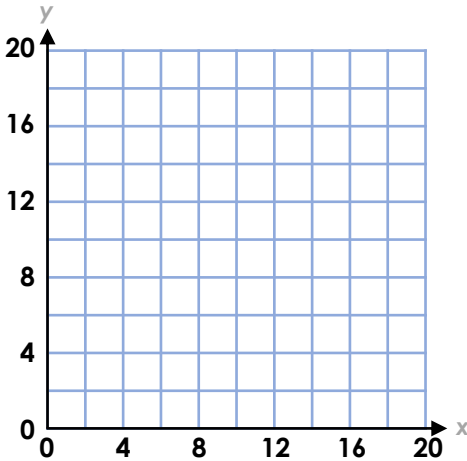
(4, 4)

(4, 1)

(2, 4)

E

VF

Draw on a Grid

7a. Plot the points for the coordinates on the grid.

(8, 5)
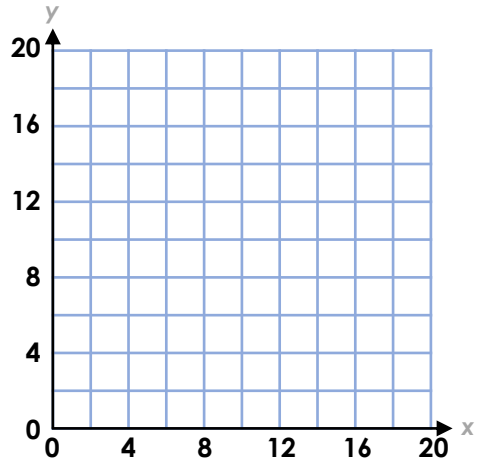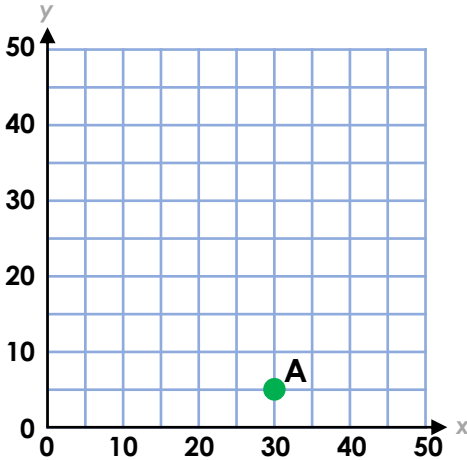
(14, 10)

(16, 16)

(9, 14)

VF

Draw on a Grid

7b. Plot the points for the coordinates on the grid.

(4, 14)
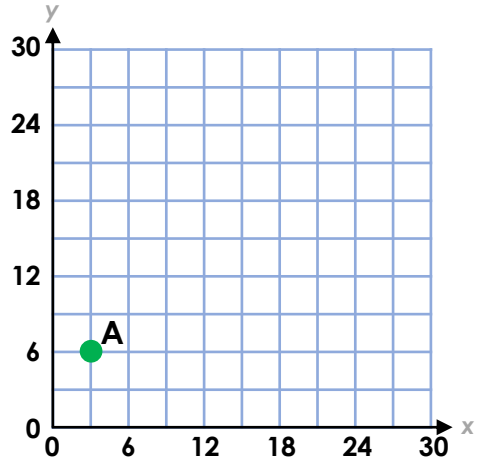
(9, 3)

(18, 10)

(13, 16)

VF

8a. Draw a rectangle on the grid. Start at point A. Write the coordinates.
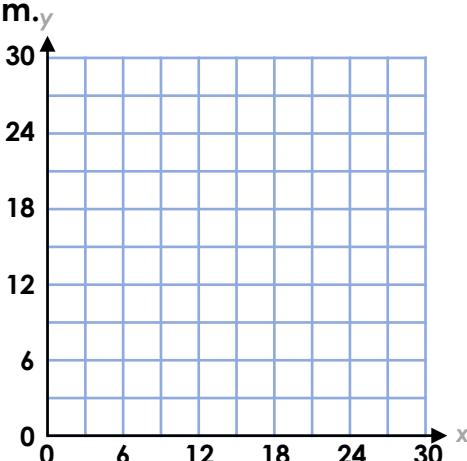
A

VF

8b. Draw a parallelogram on the grid. Start at point A. Write the coordinates.

A

VF

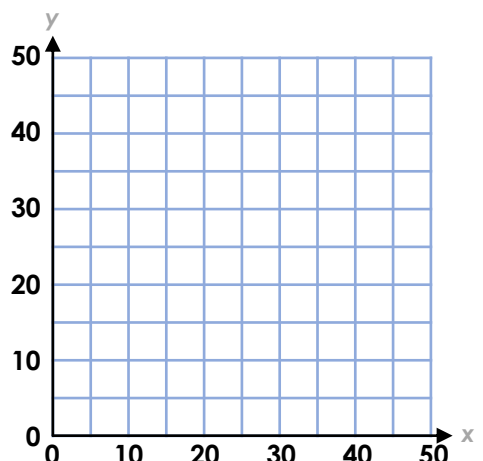**9a.** True or false? These are the coordinates for the vertices of a parallelogram.

(6, 6)

(9, 15)

(21, 15)

(18, 6)

VF

9b. True or false? These are the coordinates for the vertices of a rectangle.

(5, 10)

(5, 25)

(35, 10)

(35, 25)
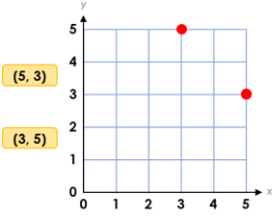
VF

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Varied Fluency – Draw on a Grid – Year 4 Greater Depth

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Developing

1a.

(5, 3)
(3, 5)

2a. Various answers, for example: A horizontal line connecting (1, 2) (4, 2)

3a. True

Developing

1b.

(2, 1)
(3, 2)
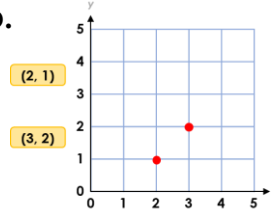
2b. Various answers, for example: A vertical line connecting (2, 1) (2, 4)

3b. True

Expected

4a.

(5, 1)
(1, 4)
(7, 2)

5a. Various answers, for example:
(2, 4) (4, 4) (4, 1)

6a. False, they are the coordinates of a rectangle.

Expected

4b.

(7, 9)
(2, 3)
(6, 1)
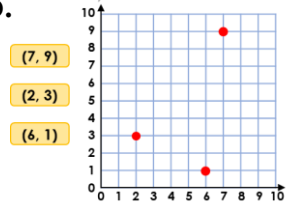
5b. Various answers, for example:
(6, 4) (6, 1) (3, 4)

6b. True

Greater Depth

7a.

(8, 5)
(14, 10)
(16, 16)
(9, 14)

8a. Various answers, for example:
(30, 5) (45, 5) (30, 30) (45, 30)

9a. True

Greater Depth

7b.

(4, 14)
(9, 3)
(18, 10)
(13, 16)
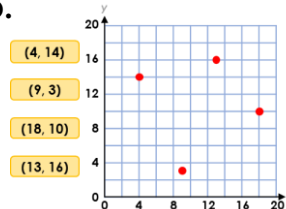
8b. Various answers, for example:
(3, 6) (6, 15) (18, 15) (15, 6)

9b. True

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