**Varied Fluency**

**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**](https://classroomsecrets.co.uk/content-domain-filter/?fwp_contentdomain=5p2)

**Differentiation:**

**Developing Questions to support understanding position in the first quadrant. Using up to 4 points, all plotted on a 5 x 5 grid, using 1:1 scale.**

**Expected Questions to support understanding position in the first quadrant. Using up to 6 points, all plotted on a 10 x 10 grid, using 1:1 scale.**

**Greater Depth Questions to support understanding position in the first quadrant. Using up to**

**6 points, all plotted on a 10 x 10 grid, using varying scales with some points plotted between increments.**

**More** [**Year 5 Position and Direction**](https://classroomsecrets.co.uk/category/maths/year-5/summer-block-3-position-and-direction-year-5/) **resources**

**Did you like this resource? Don’t forget to** [**review**](https://classroomsecrets.co.uk/position-in-the-first-quadrant-year-5-position-and-direction-free-resource-pack) **it on our website.**

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**Varied Fluency – Position in the First Quadrant – Teaching Information**

|  |  |  |  |
| --- | --- | --- | --- |
| **1a. Write the coordinates of all the marked points on the grid.** |  | **1b. Write the coordinates of all the marked points on the grid.** |  |
| **)** **,** **(****)****(** **,** **(** **,** **)****D****5****4****3****2****1****0****0****1****2****3****4****5*****x******y*****B****A****C****A****B****C** | VF | **)** **,** **(****(** **,** **)****(** **,** **)****D****A****5****4****3****2****1****0****0****1****2****3****4****5*****x******y*****B****C****A****B****C** | VF |
| **2a. Each point moves one square up. Write the new coordinates of each new point and draw them on the grid.****D****0****1****2****3****4****5*****x******y*****B****A****C****5****4****3****2****1****0****A****B****C** | **(** **,** **)****(** **,** **)****(** **,** **)**VF | **2b. Each point is moved one square down. Write the new coordinates of each point, and draw them on the grid.****D****5****4****3****2****1****0****0****1****2****3****4****5*****x******y*****B****A****C****A****B****C** | **(** **,** **)****(** **,** **)****(** **,** **)**VF |
| **3a. Look at the shape drawn on the grid below. Write the coordinates of the vertices of the shape.**VF **,** **)****(** **,** **)****(****)** **,** **(****D****0****1****2****3****4****5*****x******y*****5****4****3****2****1****0** | **3b. Look at the shape drawn on the grid below. Write the coordinates of the vertices of the shape.**VF **,** **)****(** **,** **)****(****)** **,** **(****D****5****4****3****2****1****0****0****1****2****3****4****5*****x******y*** |

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**Varied Fluency – Position in the First Quadrant – Year 5 Developing**

|  |  |  |
| --- | --- | --- |
| **4a. Write the coordinates of all the marked points on the grid.** |  | **4b. Write the coordinates of all the marked points on the grid.** |
| **10****9****8****7****6****5****4****3****2****1****0*****x******y*****B****D****A****C****E****F** **0 1 2 3 4 5 6 7 8 910****E** | VF | **E****10****9****8****7****6****5****4****3****2****1****0****0****1****2****3****4****5****6****7****8****9****10*****x******y*****B****C****D****A**VF**E****F** |
| **5a. Each point moves two squares up.** **Write the new coordinates of each point.** **0 1 2 3 4 5 6 7 8 910** VF**10****9****8****7****6****5****4****3****2****1****0*****x******y*****B****C****A****D****E** | **5b. Each point moves two squares right.** **Write the new coordinates of each point.****E**VF**10****9****8****7****6****5****4****3****2****1****0****0****1****2****3****4****5****6****7****8****9****10*****x******y*****A****B****C****D** |
| **6a. Look at the shape drawn on the grid below. Write the coordinates of the vertices of the shape.****10****9****8****7****6****5****4****3****2****1****0*****x******y*** **0 1 2 3 4 5 6 7 8 910** VF**E** | **6b. Look at the shape drawn on the grid below. Write the coordinates of the vertices of the shape.*****y*****E****10****9****8****7****6****5****4****3****2****1****0****0****1****2****3****4****5****6****7****8****9****10*****x***VF |

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**Varied Fluency – Position in the First Quadrant – Year 5 Expected**

|  |  |
| --- | --- |
| **7a. Write the coordinates of all the marked points on the grid.** | **7b. Write the coordinates of all the marked points on the grid.** |
| **20****18****16****14****12****10****8****6****4****2****0*****x******y*****B****C****A****D****E****F****0 2 4 6 8 101214 16 18 20****GD**VF | **20****18****16****14****12****10****8****6****4****2****0*****x******y*****C****B****A****D****E****F****0 2 4 6 8 101214 16 18 20****GD**VF |
| **8a. Each point moves one square left and three squares up. Write the new coordinates of each point.** **20****18****16****14****12****10****8****6****4****2****0*****x******y*****B****A****D****C****E** **0 2 4 6 8 101214 16 18 20** VF**GD** | **8b. Each point moves two squares right and three squares up. Write the new coordinates of each point.**VF**GD****20****18****16****14****12****10****8****6****4****2****0****0****2****4****6****8****10****12****14****16****18****20*****x******y*****B****C****A****D****E** |
| **9a. Look at the shape drawn on the grid below. Write the coordinates of the vertices of the shape.****20****18****16****14****12****10****8****6****4****2****0*****x******y*** **0 2 4 6 8 101214 16 18 20** VF**GD** | **9b. Look at the shape drawn on the grid below. Write the coordinates of the vertices of the shape.*****y***VF**GD****20****18****16****14****12****10****8****6****4****2****0****0****2****4****6****8****10****12****14****16****18****20*****x*** |

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**Varied Fluency – Position in the First Quadrant – Year 5 Greater Depth**

**Varied Fluency Position in the First Quadrant Varied Fluency Position in the First Quadrant**

## Developing

**1a. A (1, 1); B (1, 3); C (4, 2)**

**2a. A (1, 2); B (2, 3); C (3, 4)**

**3a. Vertices plotted from top left clockwise**

**(1, 3) (3, 1) (1, 1)**

## Expected

**4a. A (0, 7); B (3, 5); C (3, 2); D (10, 4); E (6,**

**8); F (7, 3)**

**5a. A (5, 5); B (4, 7); C (6, 7); D (7, 5)**

**6a. Vertices plotted from top left clockwise**

**(1, 7) (8, 7) (8, 3) (1, 3)**

## Greater Depth

**7a. A (18, 4); B (20, 15); C (0, 0); D (14, 19);**

**E (5, 12); F (10, 8)**

**8a. A (2, 6); B (9, 7); C (5, 13); D (14, 20); E**

**(12, 17)**

**9a. Vertices plotted from top left clockwise**

**(12, 14) (17, 10) (15, 4) (9, 4) (7, 10)**

## Developing

**1b. A (1, 2); B (2, 4); C (4, 0)**

**2b. A (1, 2); B (2, 2); C (4, 2)**

**3b. Vertices plotted from top left clockwise**

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

## Expected

**4b. A (1, 2); B (5, 3); C (7, 1); D (9, 4); E (3,**

**8); F (8, 8)**

**5b. A (3, 0); B (8, 4); C (7, 1); D (10, 8)**

**6b. Vertices plotted from top left clockwise**

**(4, 8) (5, 8) (5, 0) (4, 0)**

## Greater Depth

**7b. A (2, 16); B (4, 8); C (3, 0); D (9, 5); E**

**(14, 15); F (18, 9)**

**8b. A (13, 20); B (13, 16); C (19, 6); D (20,**

**19); E (8, 12)**

**9b. Vertices plotted from top left clockwise**

**(2, 16) (12, 16) (17, 12) (12, 2) (2, 2)**

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**Varied Fluency – Position in the First Quadrant ANSWERS**