Varied Fluency
Step 5: Translation with Coordinates

National Curriculum Objectives:

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

Differentiation:

Developing Questions to support translating points using coordinates.
**Expected** Questions to support translating polygons with up to 4 sides using coordinates.
Greater Depth Questions to support translating irregular shapes and compound rectilinear shapes using coordinates.

More **Year 5 Position and Direction** resources

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

classroomsecrets.co.uk

Translation with Coordinates

Translation with Coordinates

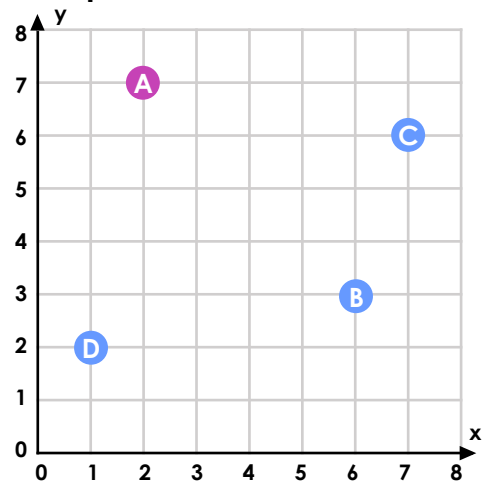**1a.** Point A is translated 3 right and 4 up. What are the coordinates of the correctly translated point?
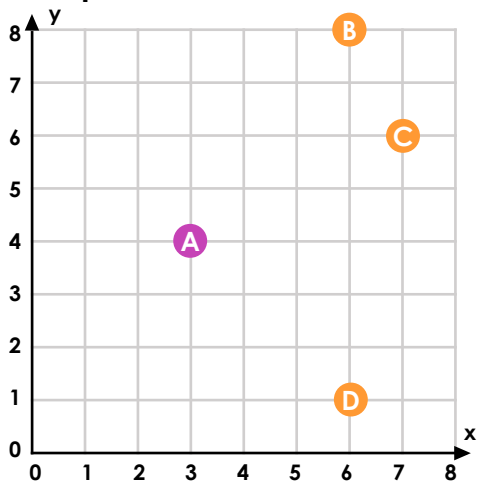
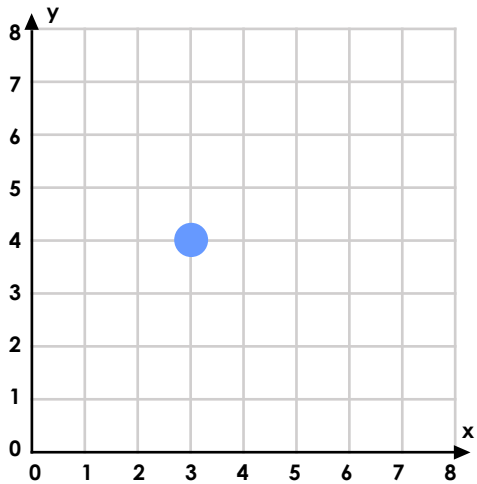**1b.** Point A is translated 1 left and 5 down. What are the coordinates of the correctly translated point?
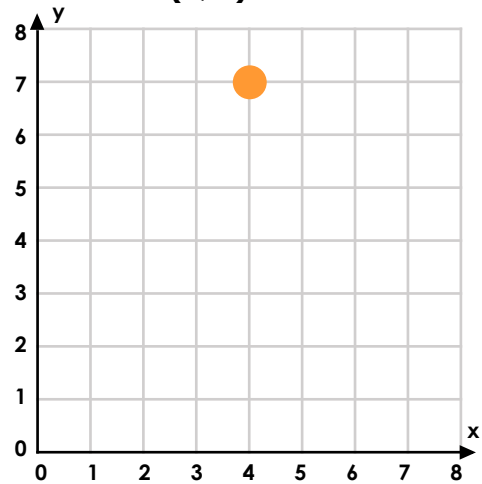
2a. True or false? If the point is translated 1 left and 2 up, the new coordinates will be (4, 6).
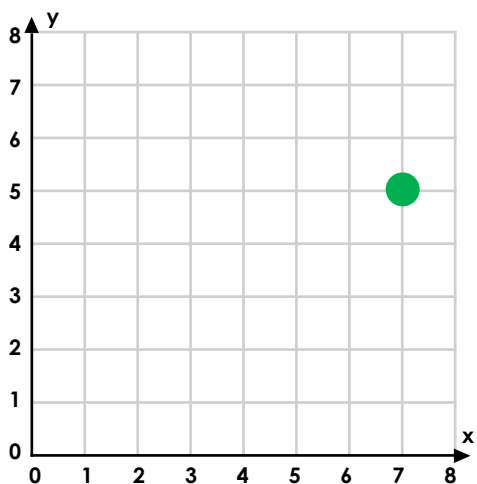
2b. True or false? If the point is translated 4 left and 5 down, the new coordinates of vertex A will be (2, 0).
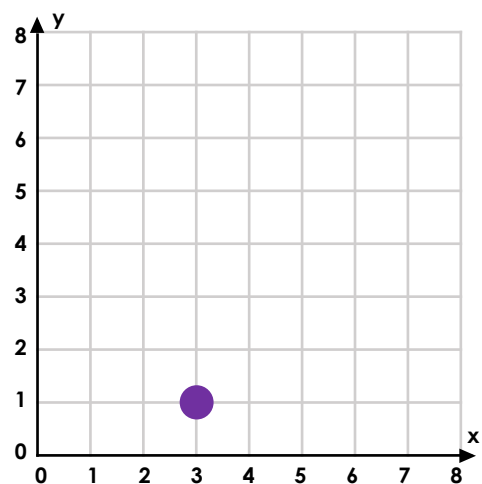
3a. This point has been translated 7 right and 3 up. What are the original coordinates?

3b. This point has been translated 3 left and 5 down. What are the original coordinates?
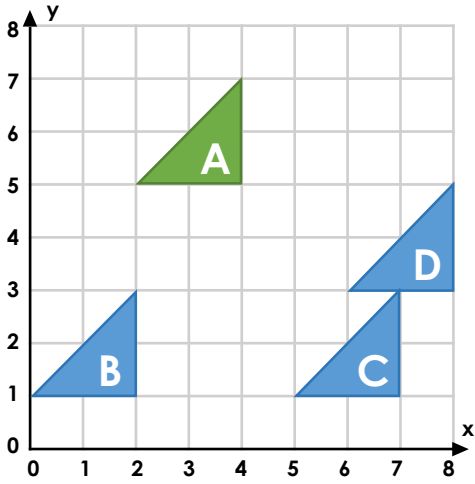
classroomsecrets.co.uk
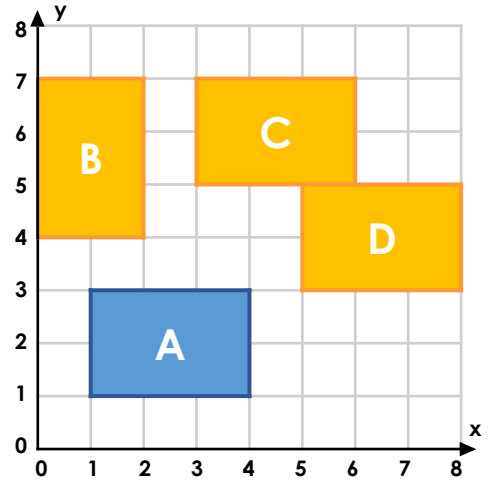
4a. Triangle A is translated 3 right and 4 down. What are the coordinates of the vertices of the correctly translated shape?
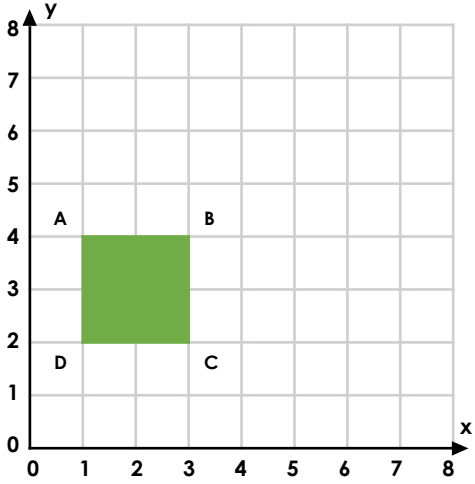

4b. Rectangle A is translated 4 right and 2 up. What are the coordinates of the vertices of the correctly translated shape?
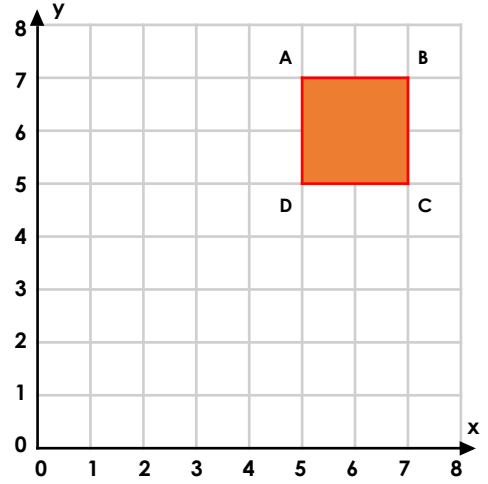

5a. True or false? If the square is translated 1 left and 2 up, the new coordinates of vertex B will be (4, 6).
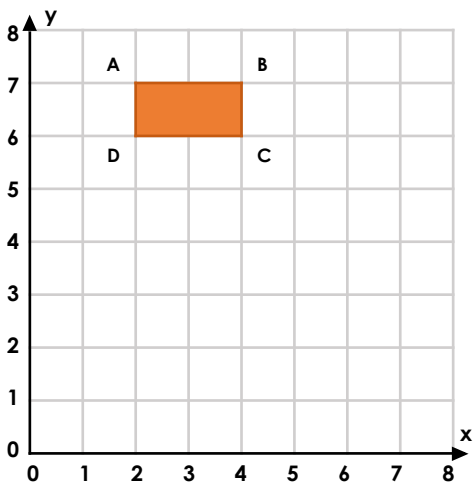

5b. True or false? If the square is translated 4 left and 5 down, the new coordinates of vertex A will be (1, 2).
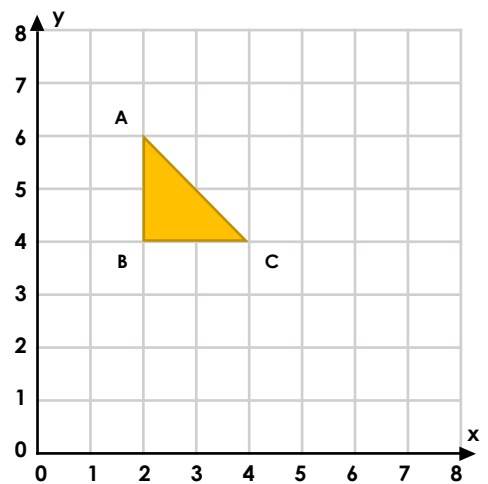

6a. This shape has been translated 2 left and 6 up. What are the original coordinates of each vertex?
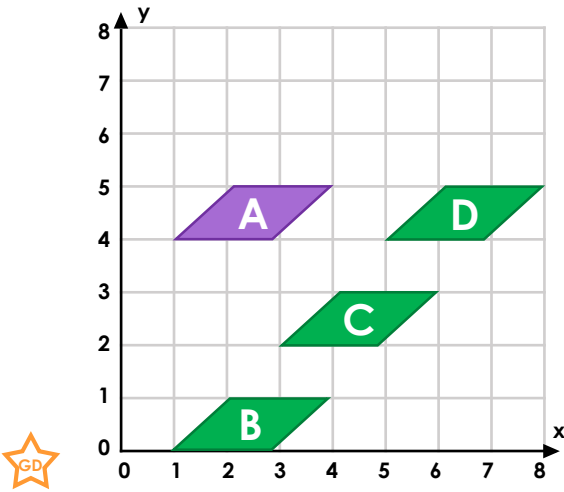

6b. This shape has been translated 3 left and 3 up. What are the original coordinates of each vertex?

classroomsecrets.co.uk

Varied Fluency – Translation with Coordinates – Year 5 Expected

7a. Shape A is translated 0 left and 4 down. What are the coordinates of the vertices of the correctly translated shape?

GD

VF

7b. Shape A is translated 2 right and 4 down. What are the coordinates of the vertices of the correctly translated shape?

GD

VF

8a. True or false? If the shape is translated 4 left and 1 up, the new coordinates of vertex D will be (3, 4).

GD

VF

8b. True or false? If the shape is translated 5 right and 2 down, the new coordinates of vertex E will be (1, 7).

D

VF

9a. This shape has been translated 2 right and 3 up. What are the original coordinates of each vertex?

GD

VF

9b. This shape has been translated 2 left and 4 up. What are the original coordinates of each vertex?
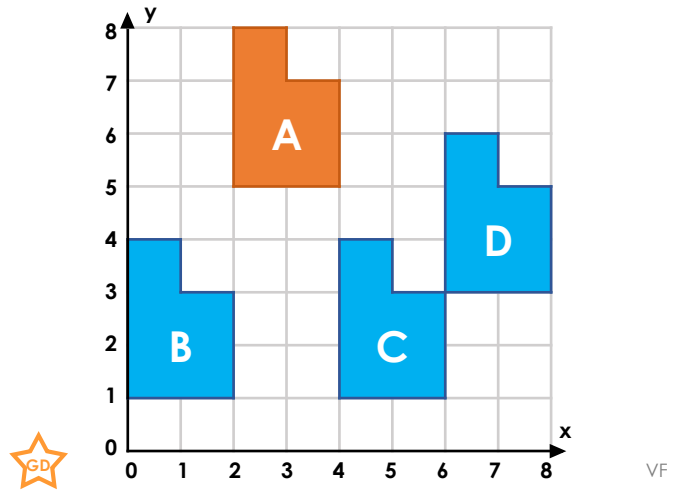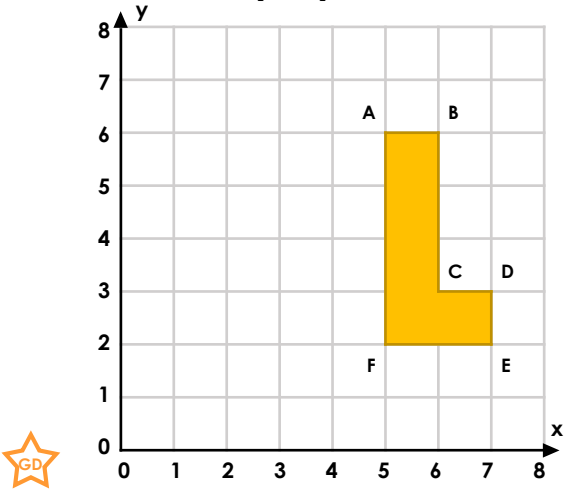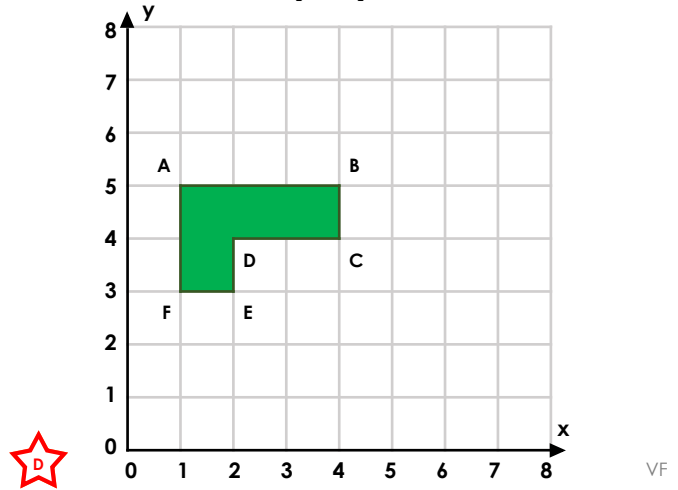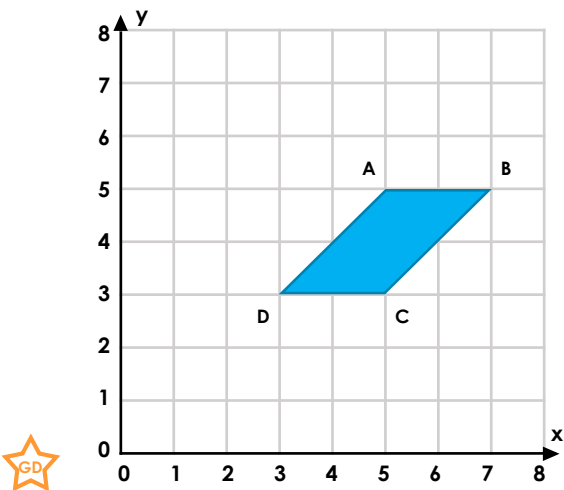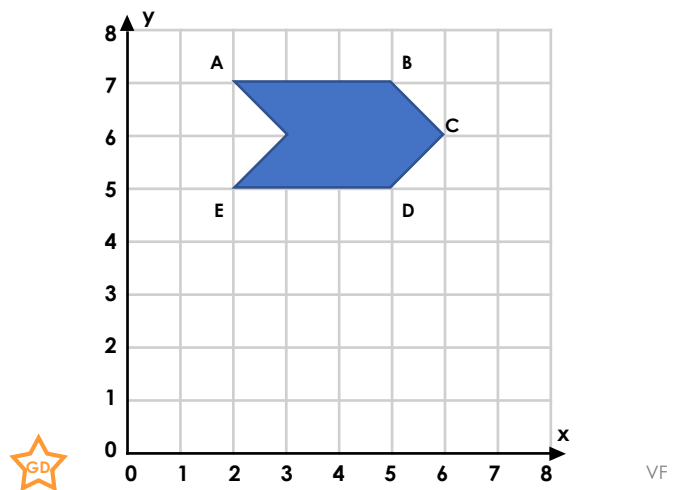
GD

VF

classroomsecrets.co.uk

Varied Fluency – Translation with Coordinates – Year 5 Greater Depth

Varied Fluency
Translation with Coordinates

Varied Fluency
Translation with Coordinates

Developing

1a. B: (6, 8)
2a. False; it will be (2, 6)
3a. (0, 2)

Expected

4a. C: (5, 1) (7,1) (7, 3)
5a. False; it will be (2, 6)
6a. A (4, 1), B (6, 1), C (6, 0), D (4, 0)

Greater Depth

7a. B: (1, 0) (3, 0) (2, 1) (4, 1)
8a. True
9a. A (3, 2), B (5, 2), C (3, 0), D (1, 0)

Developing

1b. D: (1, 2)
2b. False; it will be (0, 2)
3b. (6, 6)

Expected

4b. D: (5, 5) (5, 3) (8, 5) (8, 3)
5b. True
6b. A (5, 3), B (5, 1), C (7, 1)

Greater Depth

7b. C: (4, 1) (6, 1) (6, 3) (5, 3) (5, 4) (4, 4)
8b. False; it will be (7, 1)
9b. A (4, 3), B (7, 3), C (8, 2), D (7, 1),
E (4, 1)

classroomsecrets.co.uk
Varied Fluency – Translation with Coordinates ANSWERS