

# Varied Fluency

## Step 3: Translations

### 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 translating triangles and quadrilaterals (up to two quadrants). One translation with one movement.

**Expected** Questions to support translating quadrilaterals (up to four quadrants). One translation with two movements per translation.

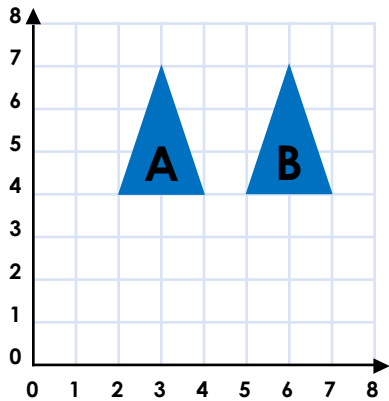
**Greater Depth** Questions to support translating irregular shapes (up to four quadrants). Two translations with two movements per translation.

More [Year 6 Position and Direction](#) resources.

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

## Translations

1a. A shape is translated from position A to position B. Complete the sentence:



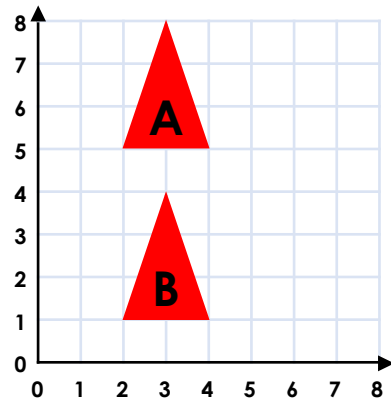
The shape has moved  squares to the right.



VF

## Translations

1b. A shape is translated from position A to position B. Complete the sentence:

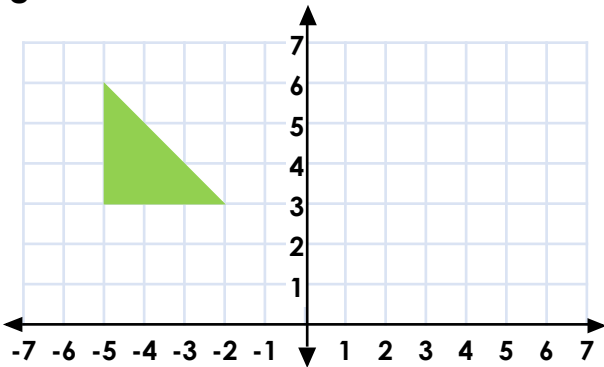


The shape has moved  squares down.



VF

2a. Translate this shape 5 squares to the right.

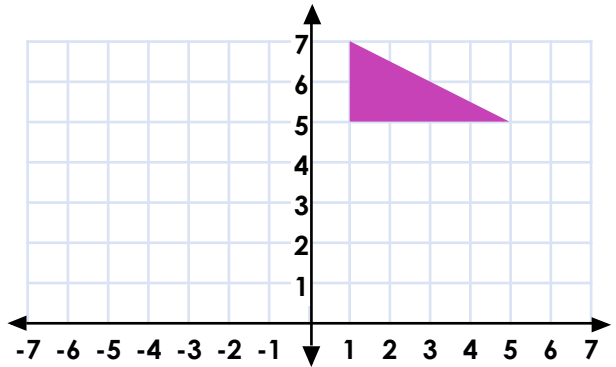


What are its new coordinates?



VF

2b. Translate this shape 3 squares to the left.

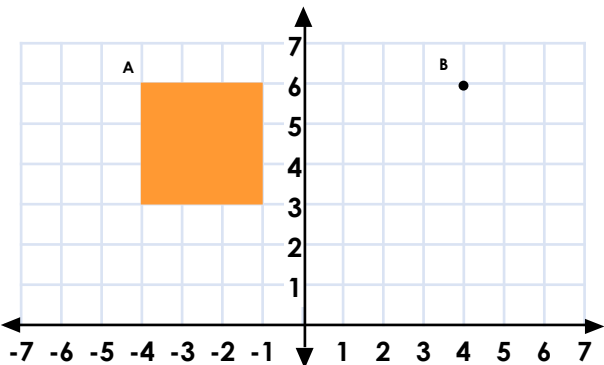


What are its new coordinates?



VF

3a. This shape is translated so that point A moves to point B.

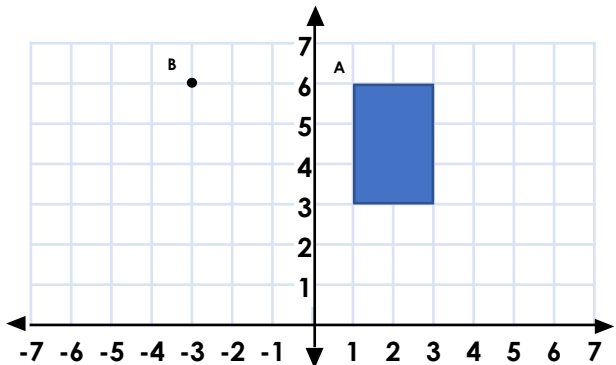


Draw the shape in its new position and write down the coordinates.



VF

3b. This shape is translated so that point A moves to point B.



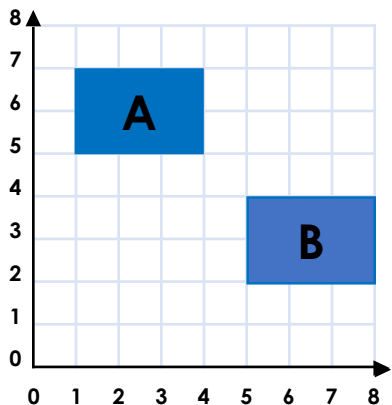
Draw the shape in its new position and write down the coordinates.



VF

## Translations

4a. A shape is translated from position A to position B. Complete the sentence:



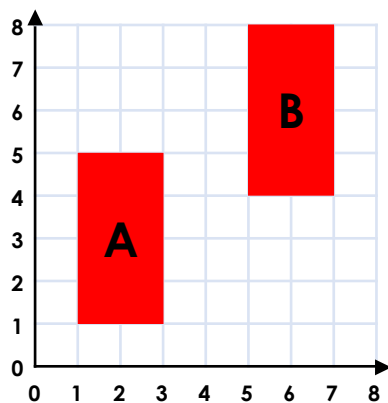
The shape has moved  squares to the right and  squares down.



VF

## Translations

4b. A shape is translated from position A to position B. Complete the sentence:

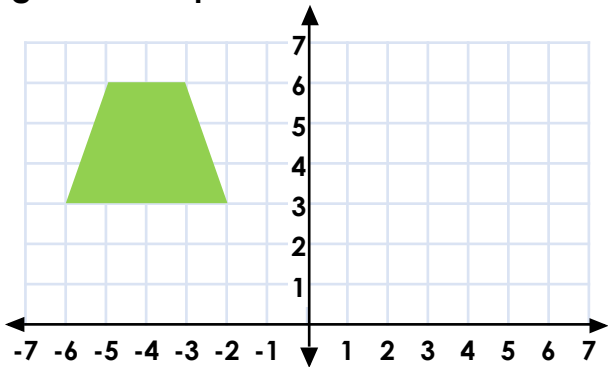


The shape has moved  squares to the right and  squares up.



VF

5a. Translate this shape 4 squares to the right and 2 squares down.

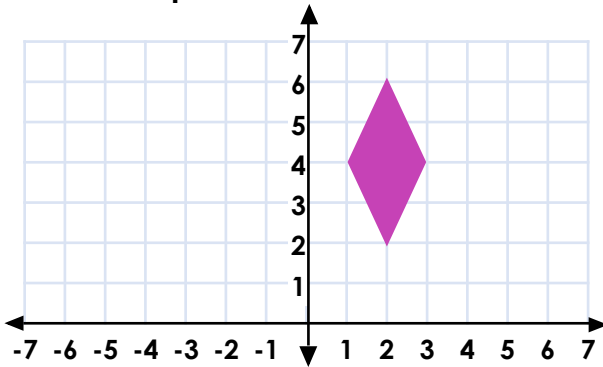


What are its new coordinates?



VF

5b. Translate this shape 3 squares to the left and 2 squares down.

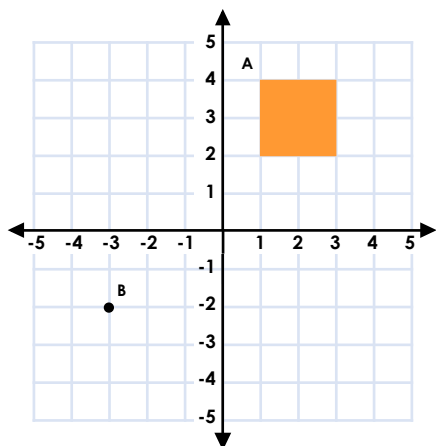


What are its new coordinates?



VF

6a. This shape is translated so that point A moves to point B.

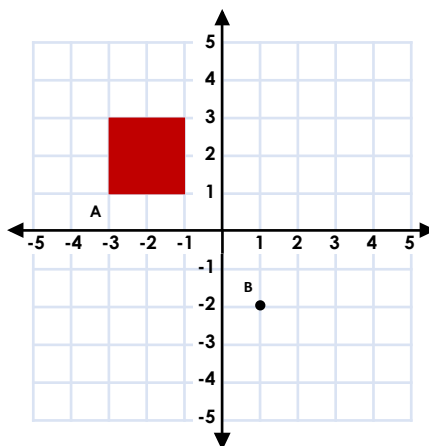


Draw the shape in its new position and write down the coordinates.



VF

6b. This shape is translated so that point A moves to point B.



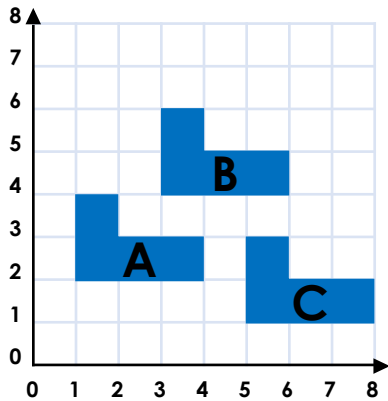
Draw the shape in its new position and write down the coordinates.



VF

## Translations

7a. A shape is translated from position A to position B then to position C.



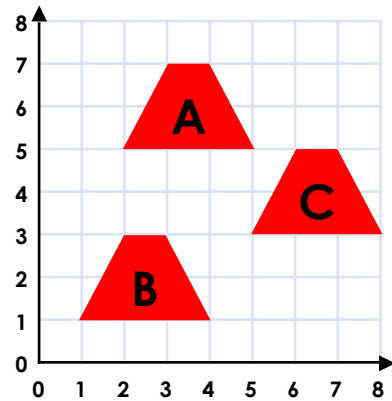
Describe the translations.



VF

## Translations

7b. A shape is translated from position A to position B then to position C.

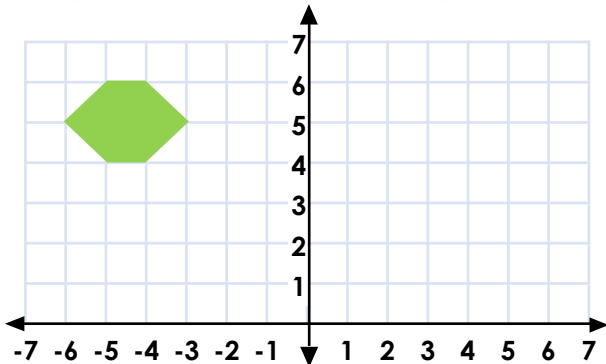


Describe the translations.



VF

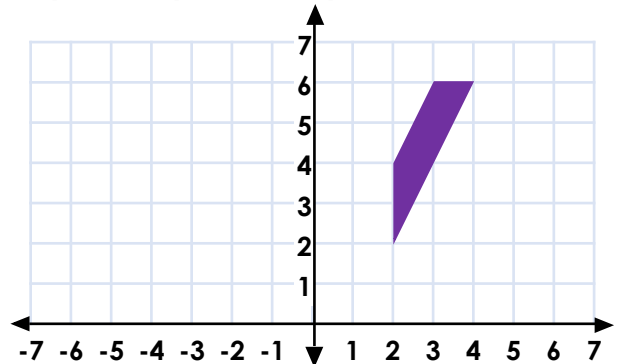
8a. Translate this shape 6 squares to the right and 3 squares down. Then translate it 1 square to the left and 1 square up.



What are its new coordinates?

VF

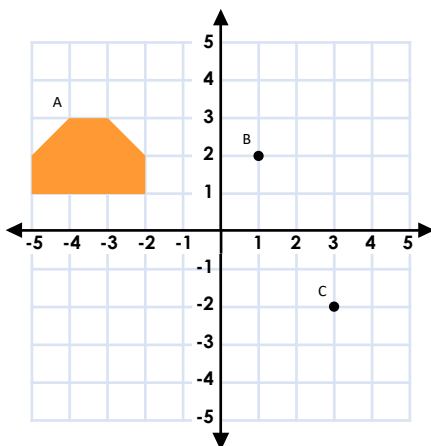
8b. Translate this shape 2 squares to the left and 2 squares down. Then translate it 3 squares up and 4 squares to the left.



What are its new coordinates?

VF

9a. This shape is translated so that point A moves to point B then to point C.

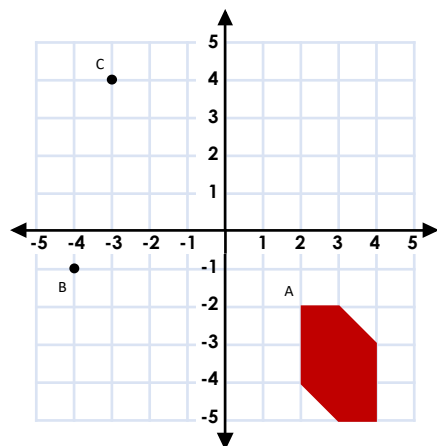


Draw the shape in its new positions and write down the coordinates.



VF

9b. This shape is translated so that point A moves to point B then to point C.



Draw the shape in its new position and write down the coordinates.



VF

## Varied Fluency Translations

### Developing

1a. 3

2a. (0, 6), (0, 3), (3, 3)

3a. Shape drawn in position:

(4, 6), (7, 6), (7, 3), (4, 3)

### Expected

4a. 4, 3

5a. (-2, 1), (-1, 4), (1, 4), (2, 1)

6a. Shape drawn in position:

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

### Greater Depth

7a. The shape has been translated 2 squares up and 2 squares to the right. Then 3 squares down and 2 squares to the right.

8a. (-1, 3), (0, 4), (1, 4), (2, 3), (1, 2), (0, 2)

9a. 2 Shapes drawn in new positions:

B: (1, 2), (2, 2), (3, 1), (3, 0), (0, 0), (0, 1)

C: (3, -2), (4, -2), (5, -3), (5, -4), (2, -4),

(2, -3)

## Varied Fluency Translations

### Developing

1b. 4

2b. (-2, 7), (-2, 5), (2, 5)

3b. Shape drawn in position:

(-3, 6), (-1, 6), (-1, 3), (-3, 3)

### Expected

4b. 4, 3

5b. (-1, 4), (0, 2), (-1, 0), (-2, 2)

6b. Shape drawn in position:

(1, -2), (3, -2), (1, 0), (3, 0)

### Greater Depth

7b. The shape has been translated 4 squares down and 1 square to the left. Then 2 squares up and 4 squares to the right.

8b. (-4, 3), (-4, 5), (-3, 7), (-2, 7)

9b. 2 shapes drawn in new positions:

B: (-4, -1), (-3, -1), (-2, -2), (-2, -4),

(-3, -4), (-4, -3)

C: (-3, 4), (-2, 4), (-1, 3), (-1, 1), (-2, 1)

(-3, 2)