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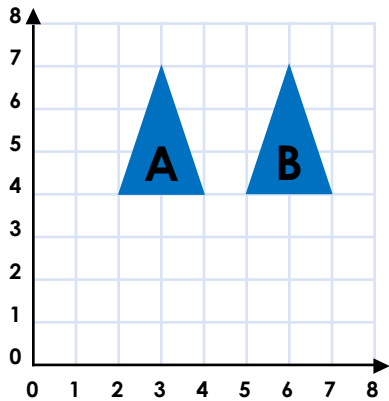**Greater Depth** Questions to support translating irregular shapes (up to four quadrants). Two translations with two movements per translation.

More Year 6 Position and Direction resources.

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

Translations

Translations

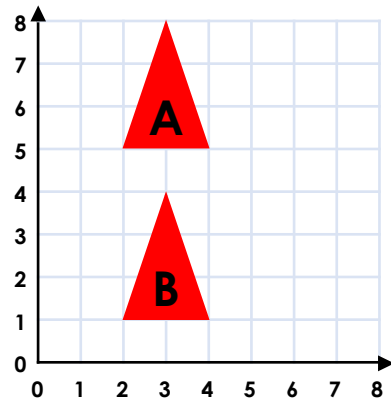**1a.** A shape is translated from position A to position B. Complete the sentence:

The shape has moved ☐ squares to the right.

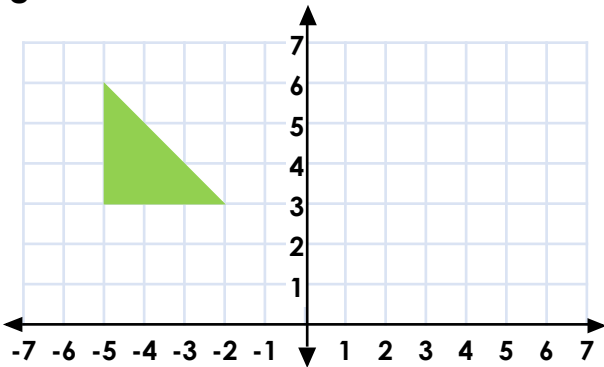**1b.** A shape is translated from position A to position B. Complete the sentence:

The shape has moved ☐ squares down.

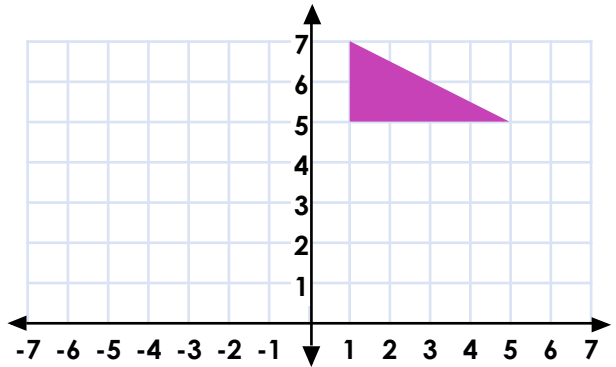**2a.** Translate this shape 5 squares to the right.

What are its new coordinates?

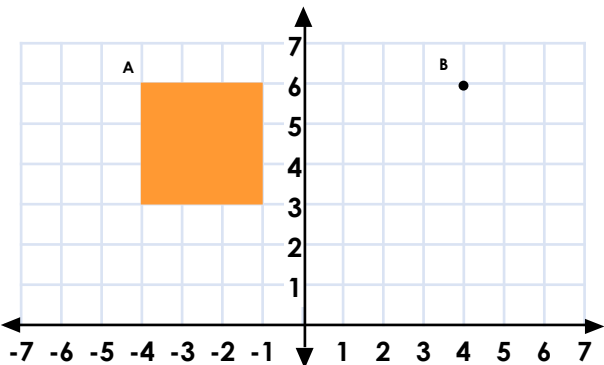**2b.** Translate this shape 3 squares to the left.

What are its new coordinates?

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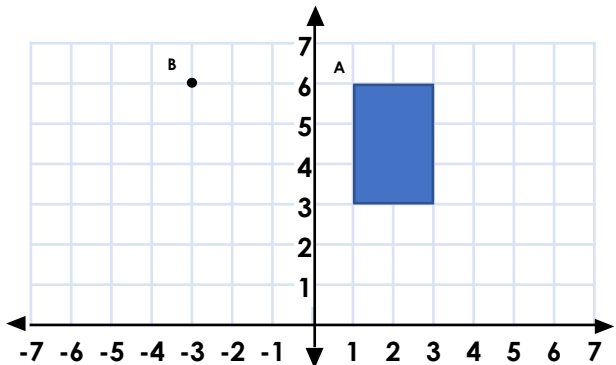

Draw the shape in its new position and write down the coordinates.

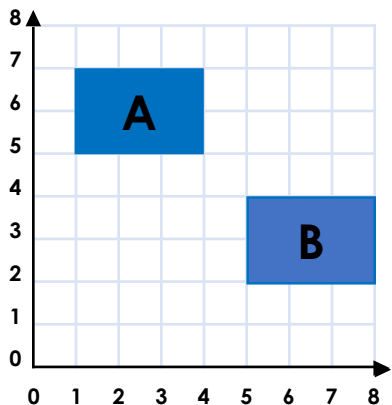**3b.** This shape is translated so that point A moves to point B.

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

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Varied Fluency – Translations – Year 6 Developing

Translations

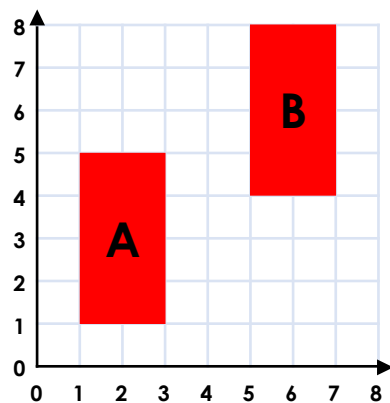**4a.** A shape is translated from position A to position B. Complete the sentence:

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

VF

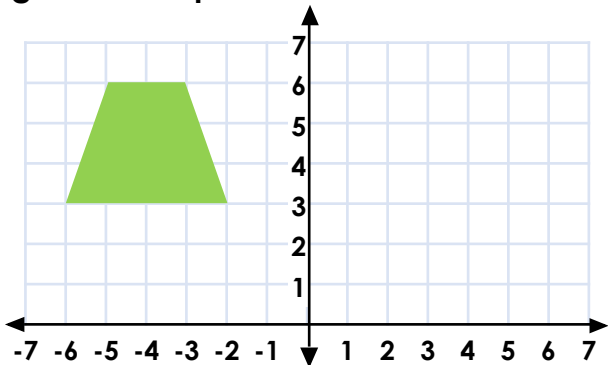**4b.** A shape is translated from position A to position B. Complete the sentence:

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

VF

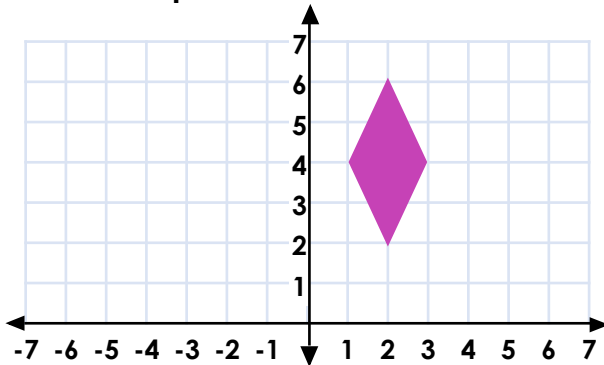**5a.** Translate this shape 4 squares to the right and 2 squares down.

What are its new coordinates?

VF

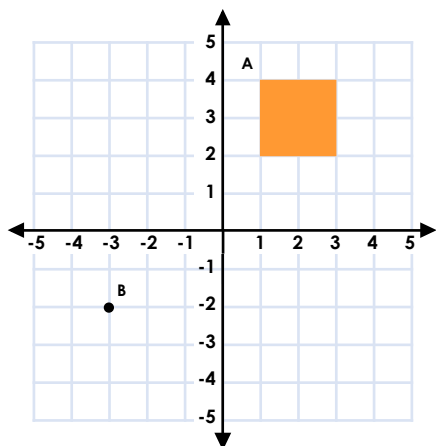**5b.** Translate this shape 3 squares to the left and 2 squares down.

What are its new coordinates?

VF

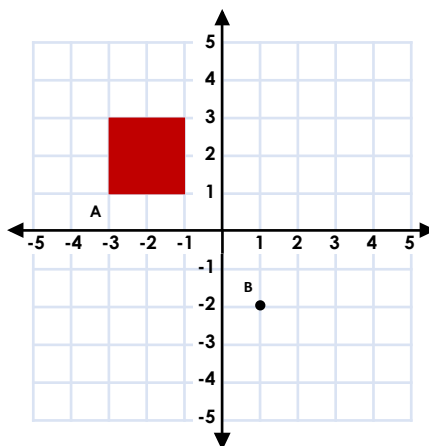**6a.** This shape is translated so that point A moves to point B.

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

VF

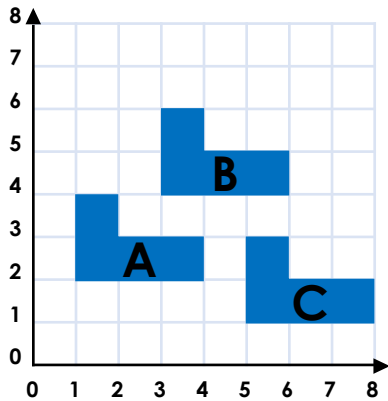**6b.** This shape is translated so that point A moves to point B.

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

VF

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Varied Fluency – Translations – Year 6 Expected
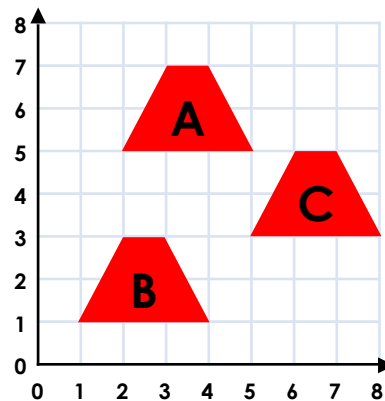
Translations

Translations

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

Describe the translations.

GD

VF

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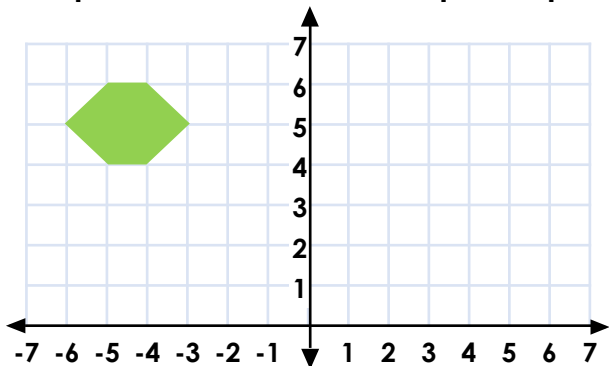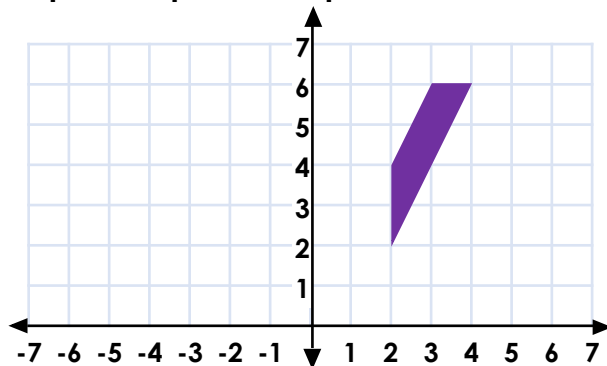

Describe the translations.

GD

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.

GD

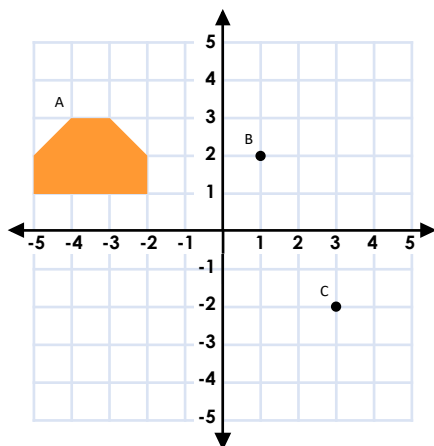**What are its new coordinates?**

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.

GD

What are its new coordinates?

VF

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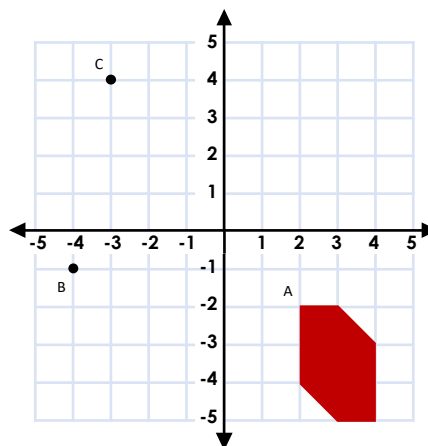

Draw the shape in its new positions and write down the coordinates.

GD

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.

GD

VF

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)

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)