

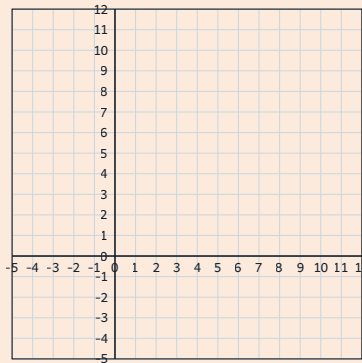
Transformations: translation, reflection, rotation and enlargement

SLIDE THEN CHECK THE RESULT

- 1 Begin with a triangle on the grid.
- 2 Move every point 4 squares right.
- 3 Move every point 1 square down.
- 4 Size, angles and orientation stay the same after the slide.

WARM-UP

Use the coordinate grid to draw each transformation.



1. Plot the starter triangle then slide it 4 squares right and 1 square down.
2. Mark the result of flipping a shape across a vertical mirror line.
3. Draw the triangle enlarged by scale factor 2 from one corner.

PRACTICE

- 1 While making a model house you flip a window shape across a vertical mirror line so it matches the other side.
Flip the shape across a vertical mirror line = ?
- 2 In the workshop you turn a bracket shape a quarter turn (90°) clockwise about one corner to line it up for fixing.
Turn the shape a quarter turn (90°) clockwise about one corner = ?
- 3 On the site plan you slide a door triangle 3 squares right and 2 squares down to the correct bay.
Slide the triangle 3 squares right and 2 squares down = ?

? ALWAYS, SOMETIMES, NEVER

Always, sometimes or never true? Write A, S or N.

- | | |
|---|---|
| a. A translation keeps the size, angles and orientation of a shape the same. ☐ | c. An enlargement by scale factor 2 makes the area twice as big. ☐ |
| b. A reflection flips a shape over a mirror line. ☐ | d. An enlargement keeps the orientation of a shape the same. ☐ |

