Year 5 | Space

Translations, reflections and rotations

Learn and practise | Free preview

A sample from this topic. The complete topic collection contains three different resources and worked solutions.

Show your thinking using words, working or a labelled drawing. Use the explanations and example first.

What you will practise

• Translations, reflections and rotations

• Explain and check an answer with an appropriate representation.

Useful starting skills: Use objects, drawings or a number line to explain a simple idea.

A translation slides every point the same distance in the same direction. A reflection flips a shape across a mirror line, keeping matching points at equal perpendicular distances from the line.

A rotation turns a shape about a fixed centre through a stated angle and direction. All three preserve side lengths and angles. Trace vertices carefully when combining transformations.

Worked example

Reflect (2, 1) in the line x=3.

The point is one unit left of the mirror line.

Its image is one unit right, with the same height.

Answer: (4, 1)

Try it yourself

Name: _____ Date: _____

1. Triangle vertices are (1, 1), (3, 1), (2, 3). Translate it 2 right and 1 up. Give the new vertices.

2. Reflect the point (2, 3) in the vertical line x=4. Give its image.

Answers and explanations

Check the method as well as the final answer. An alternative correct method is also valid.

1. (3, 2), (5, 2), (4, 4)

Apply exactly the same movement to every vertex.

2. (6, 3)

The point is two units left of the mirror line, so its image is two units right.

Curriculum reference: VC2M5SP03

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