

Transformations of a set of points using coordinates in the...

describe transformations of a set of points using coordinates in the Cartesian plane, translations and reflections on an axis, and rotations about a given point

Learning intention

- describe transformations of a set of points using coordinates in the Cartesian plane, translations and reflections on an axis, and rotations about a given point

Teach and model

- using digital tools to transform shapes in the Cartesian plane, describing and recording the transformations
- describing patterns and investigating different ways to produce the same transformation, such as using 2 successive reflections to provide the same result as a...
- experimenting with, creating and re-creating patterns using combinations of translations, reflections and rotations, using digital tools

Check understanding

- Explain the main idea in transformations of a set of points using coordinates in the... using an example.
- Show the idea in a second way: with words, a model, a diagram or symbols.
- Apply the idea to a short unfamiliar situation and justify the result.

Teaching cautions

- Ask the student to explain their choice, not only state an answer.
- Check that key vocabulary is understood in a new example.
- Mix representations so the skill is transferred rather than copied.

Quick lesson sequence

- Connect to prior knowledge and introduce the key vocabulary.
- Model one clear example, then solve a second example together.
- Finish with an independent check and a short student explanation.