Max’s Transformations Mastery: Class 6 Maths Flashcards

Learning objective: To identify, describe, and perform transformations including translations, reflections, and rotations on a 2D coordinate grid.

Use these flashcards to test your knowledge of geometry and transformations. Max the monkey is ready to help you solve these coordinate puzzles!

What is a translation?	A transformation where a shape moves from one position to another without turning or changing size.
If a shape moves 3 units right and 4 units down, how do you describe this translation?	A translation vector of (3, -4).
What is a reflection?	A transformation where a shape is 'flipped' over a mirror line, creating a mirror image.
When reflecting a shape, what happens to the distance of each point from the mirror line?	The distance remains exactly the same for every corresponding point on the original and the image.
What is a rotation?	A transformation where a shape turns around a fixed point called the centre of rotation.
To describe a rotation fully, what three pieces of information do you need?	The direction (clockwise or anticlockwise), the number of degrees, and the centre of rotation.
If Max rotates a shape 90 degrees clockwise, does the shape's size or shape change?	No, the shape remains congruent (identical in size and shape).
What is the 'origin' on a coordinate grid?	The point where the x-axis and y-axis cross, represented by the coordinates (0,0).
What is a 'vertex' in the context of transformations?	A corner of a 2D shape where two or more edges meet.
How can you tell if a transformation is a reflection rather than a rotation?	In a reflection, the orientation of the shape is reversed; in a rotation, the orientation remains the same.