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Date _____

Unit 14 · Position and transformation — glossary

All 20 key words, with a worked example for each.

Term	Meaning	Example
coordinates	A pair of numbers (x, y) fixing a position.	$(3, -2)$.
origin	The point (0, 0), where the axes cross.	<i>The centre of the grid.</i>
quadrant	One of the four regions the axes divide the plane into.	$(-2, 5)$ is in quadrant 2.
transformation	A change of position, orientation or size.	<i>Translation, reflection, rotation, enlargement.</i>
object	The shape you start with.	<i>Triangle A.</i>
image	The shape after the transformation.	<i>Triangle A'.</i>
translation	A slide: every point moves the same way.	<i>By $(4, -1)$.</i>
vector	The pair (across, up) describing a translation.	$(-3, 5)$.
reflection	A flip in a mirror line.	<i>In the y-axis.</i>
mirror line	The line a shape is reflected in.	$x = 2$.
invariant point	A point that does not move.	<i>A point on the mirror line.</i>
rotation	A turn about a fixed point.	<i>90° anticlockwise about $(1, 1)$.</i>
centre of rotation	The point everything turns around.	<i>The one point that does not move.</i>
anticlockwise	The positive direction of turn.	<i>Opposite to clock hands.</i>
congruent	Same shape and same size.	<i>After any slide, flip or turn.</i>
similar	Same shape, possibly different size.	<i>After an enlargement.</i>
enlargement	A change of size by a scale factor.	<i>Scale factor 3.</i>
scale factor	The number every length is multiplied by.	<i>$k = 2$ doubles every length.</i>
scale	The rule linking a drawing to real life.	<i>$1 : 25\,000$.</i>
scale drawing	A drawing with every length reduced or enlarged equally.	<i>A floor plan.</i>