Vectors and transformation geometry

Pearson Edexcel · International GCSE · Mathematics A · Vocabulary in context

Word	Example
↗ **vector** /'vektə/	A **vector** describes both size and direction.
# **scalar** /'skeɪlə/	Mass is a **scalar** because it has no direction.
magnitude /'mægnɪtjuːd/	The force has a **magnitude** of 20 N. 20 N
column vector /'kɒlʌm 'vektə/	A **column vector** is written with one number above the other.
× **scalar multiple**	2a is a **scalar multiple** of a: same direction, twice as long. 2a a
= **parallel** /'pærəlel/	**Parallel** lines have equal gradients and never meet.
resultant /rɪ'zʌltənt/	The **resultant** combines successive displacement vectors into one vector.
[ ] **modulus** /'mɒdjʊləs/	The **modulus** of 4 + 3j is 5. 4 + 3j 5
× **coefficient** /ˌkəʊɪ'fɪʃənt/	The number in front of the letter is the **coefficient**.
parallelogram /ˌpærə'leləgræm/	A **parallelogram** has two pairs of parallel sides.
• **midpoint** /'mɪdpɔɪnt/	The **midpoint** of (0, 0) and (4, 6) is (2, 3). (0, 0) (4, 6) (2, 3)
diagonal	A **diagonal** joins opposite corners of a shape.
bisect	The diagonals of a parallelogram **bisect** each other.

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image /'ɪmɪdʒ/	After a reflection, the **image** is the same size as the original.
reflection /rɪ'flekʃn/	**Reflection** in a mirror lets you see yourself.
— **mirror line** /'mɪrə laɪn/	Corresponding points lie equally far on opposite sides of the **mirror line**.
rotation /rəʊ'teɪʃn/	A **rotation** turns a shape around a point.
clockwise /'klɒkwaɪz/	The hands of a clock turn **clockwise**.
anticlockwise /ˌæntɪ'klɒkwaɪz/	Turn the lid **anticlockwise** to open the jar.
translation /træn'sleɪʃn/	A **translation** moves every point two units to the left.
= **congruent** /'kɒŋgruːənt/	**Congruent** shapes are exactly the same size and shape.
vertex /'vɜːteks/	The **vertex** of $y = (x - 2)^2 + 3$ is (2, 3). $y = (x - 2)^2 + 3$ (2, 3)
enlargement /en'lɑːdʒmənt/	An **enlargement** makes a shape bigger or smaller.
centre of enlargement /'sentə ɒv en'lɑːdʒmənt/	Draw lines through corresponding points to locate the **centre of enlargement**.
scale factor /skeɪl 'fæktə/	A **scale factor** of three triples each length. three
similar /'sɪmɪlə/	**Similar** shapes have the same shape but different sizes.