Multiple choice questions - Transformations

Year: Year 11 · 10

Question 1 To describe a reflection you must state

- ◯ **A.** the angle
- ◯ **B.** the mirror line
- ◯ **C.** the centre
- ◯ **D.** the vector

Question 2 A translation is described using

- ◯ **A.** a scale factor
- ◯ **B.** a column vector
- ◯ **C.** a mirror line
- ◯ **D.** an angle and centre

Question 3 Reflect (3,-4) in the x-axis.

- ◯ **A.** $(3, 4)$
- ◯ **B.** $(-3, -4)$
- ◯ **C.** $(-3, 4)$
- ◯ **D.** $(4, -3)$

Question 4 A rotation needs

- ◯ **A.** angle only
- ◯ **B.** angle and direction only
- ◯ **C.** angle, direction and centre
- ◯ **D.** a vector

Question 5 Rotate (2,3) by 180 degrees about the origin.

- ◯ **A.** $(3, 2)$
- ◯ **B.** $(-2, -3)$
- ◯ **C.** $(-2, 3)$
- ◯ **D.** $(2, -3)$

Question 6 A rectangle area 5 cm squared is enlarged by scale factor 3. The new area is

- ◯ **A.** 15
- ◯ **B.** 25

- ◯ **C.** 45
- ◯ **D.** 30

Question 7 Enlarging with scale factor 1/2 makes a shape

- ◯ **A.** bigger
- ◯ **B.** smaller
- ◯ **C.** the same size
- ◯ **D.** upside down

Question 8 (Higher) Enlarge (2,-1) by scale factor -3, centre the origin.

- ◯ **A.** $(6, 3)$
- ◯ **B.** $(-6, 3)$
- ◯ **C.** $(6, -3)$
- ◯ **D.** $(-6, -3)$

Question 9 (Higher) Reflecting in the x-axis then the y-axis is equivalent to

- ◯ **A.** a translation
- ◯ **B.** a reflection in y=x
- ◯ **C.** a rotation of 180 degrees about the origin
- ◯ **D.** an enlargement

Question 10 The vector $\begin{pmatrix} -3 \\ 2 \end{pmatrix}$ means

- ◯ **A.** 3 right, 2 up
- ◯ **B.** 3 left, 2 up
- ◯ **C.** 3 left, 2 down
- ◯ **D.** 3 right, 2 down

Answer grid - Transformations

Year: Year 11

Question	Answer	Explanation
1	**B**	Mirror line.
2	**B**	Vector.
3	**A**	Sign of y changes.
4	**C**	Three details.
5	**B**	Both signs change.
6	**C**	5 x 9.
7	**B**	Between 0 and 1.
8	**B**	Multiply by -3.
9	**C**	Both signs change.
10	**B**	Negative x is left.