Multiple choice questions - Transformations

Year: Year 8 · 10

Question 1 Reflecting $(5, -2)$ in the x-axis gives

- ◯ **A.** $(-5, -2)$
- ◯ **B.** $(5, 2)$
- ◯ **C.** $(-5, 2)$
- ◯ **D.** $(2, 5)$

Question 2 Reflecting $(5, -2)$ in the y-axis gives

- ◯ **A.** $(-5, -2)$
- ◯ **B.** $(5, 2)$
- ◯ **C.** $(-5, 2)$
- ◯ **D.** $(-2, 5)$

Question 3 Translate $(0, 0)$ by $\begin{pmatrix} -3 \\ 4 \end{pmatrix}$.

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

Question 4 Which needs a centre to describe it?

- ◯ **A.** Reflection
- ◯ **B.** Translation
- ◯ **C.** Rotation only
- ◯ **D.** Enlargement and rotation

Question 5 Rotating $(3, 2)$ 180° about the origin gives

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

Question 6 Enlarging by scale factor 4 multiplies area by

- ◯ **A.** 4
- ◯ **B.** 8

- ◯ **C.** 16
- ◯ **D.** 2

Question 7 Which transformation changes size?

- ◯ **A.** Reflection
- ◯ **B.** Rotation
- ◯ **C.** Translation
- ◯ **D.** Enlargement

Question 8 A 90° clockwise rotation about the origin takes $(1, 0)$ to

- ◯ **A.** $(0, 1)$
- ◯ **B.** $(0, -1)$
- ◯ **C.** $(-1, 0)$
- ◯ **D.** $(1, 0)$

Question 9 A scale factor of $\frac{1}{3}$ makes a shape

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

Question 10 The image of a shape after a translation is

- ◯ **A.** similar but larger
- ◯ **B.** congruent to the object
- ◯ **C.** reflected
- ◯ **D.** rotated

Answer grid - Transformations

Year: Year 8

Question	Answer	Explanation
1	**B**	The y-coordinate changes sign.
2	**A**	The x-coordinate changes sign.
3	**B**	Left 3, up 4.
4	**D**	Rotation and enlargement both have a centre.
5	**A**	Both coordinates change sign.
6	**C**	4^2.
7	**D**	Enlargement.
8	**B**	$(x, y) \to (y, -x)$.
9	**B**	Scale factor below 1 shrinks.
10	**B**	Translations keep size and shape.