

Transformations – translation, reflection, rotation and enlargement

WHAT THIS LESSON TEACHES

Three ways to move a shape without changing its size or shape: **translation** (slide), **reflection** (flip across a line), **rotation** (turn around a point).

→ **Translation**: every point shifts by the same amount, e.g. 3 squares right and 2 down.

→ **Reflection**: every point flips to the **opposite side** of a mirror line.

→ **Rotation**: every point turns through the same angle around a fixed centre.

ANSWER KEY

a) Translation $A \rightarrow (4,0)$, $B \rightarrow (6,0)$, $C \rightarrow (5,2)$.

Q2: reflection

b) Reflection $W \rightarrow (4,1)$, $X \rightarrow (2,1)$, $Y \rightarrow (2,3)$, $Z \rightarrow (4,3)$.

Q3: reflection

c) Rotation 180° about origin: $P(2,-2) \rightarrow (-2,2)$.

Q4: reflection

Q1: reflection

EXTENSION SHEET · STRETCH ANSWERS

S1: reflection

S3: rotation

S2: reflection