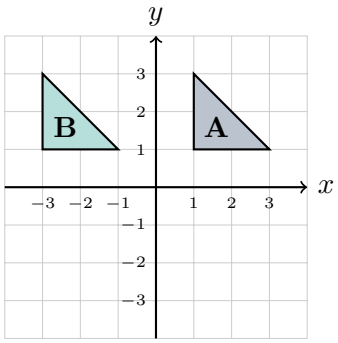
Describing Transformations (Foundation)

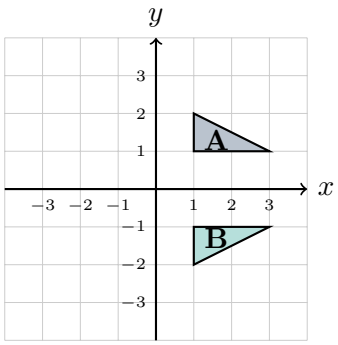
Core Worksheet

Worked Examples & Guided Practice

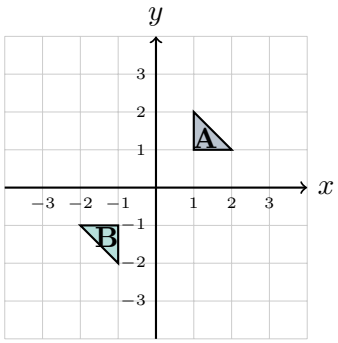
I Do (Teacher Model) Describe fully the single transformation that maps Shape A onto Shape B.



We Do (Guided Practice) Describe fully the single transformation that maps Shape A onto Shape B.



You Do (Independent Practice) Describe fully the single transformation that maps Shape A onto Shape B.



Challenge (Extension) Shape A has vertices at $(1, 1)$, $(2, 1)$, and $(1, 3)$. Shape B has vertices at $(2, 2)$, $(4, 2)$, and $(2, 6)$. Describe fully the single transformation that maps Shape A onto Shape B.

Practice Perfect Questions

Q1. State the 3 key details needed to describe a **rotation**.

Q2. State the 2 key details needed to describe an **enlargement**.

Q3. State the key detail needed to describe a **translation**.

Q4. State the key detail needed to describe a **reflection**.

Q5. Shape A is mapped to Shape B by moving 4 units left and 3 units down. Write down the translation vector.

Q6. Shape A at $(1, 2)$ is mapped to Shape B at $(3, 6)$ with double the side lengths. Identify the center of enlargement if the scale factor is 2.

Answers & Worked Solutions

Model Solutions

- **I Do:** Translation by vector $\begin{pmatrix} -4 \\ 0 \end{pmatrix}$
- **We Do:** Reflection in the x-axis (or line $y = 0$)
- **You Do:** Rotation of $180°$ about the origin $(0, 0)$
- **Challenge:** Enlargement by scale factor 2, center of enlargement $(0, 0)$

Practice Perfect Questions Solutions

Q1. Angle of rotation, Direction (clockwise/anticlockwise), Center of rotation (x, y)

Q2. Scale factor, Center of enlargement (x, y)

Q3. Translation vector $\begin{pmatrix} x \\ y \end{pmatrix}$

Q4. Equation of the mirror line (e.g. y-axis, $x = 2$, $y = x$)

Q5. $\begin{pmatrix} -4 \\ -3 \end{pmatrix}$

Q6. Center of enlargement is $(0, 0)$