Guide to:
Mixed transformations

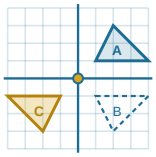
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Explanation:

When a question asks for the **single transformation** that maps shape *A* onto shape *B*, you must name **only one** of the four transformations: **Translation** (with column vector), **Reflection** (with mirror line equation), **Rotation** (with angle, direction, and centre), or **Enlargement** (with scale factor and centre).

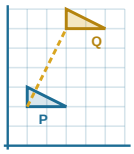
Never combine two transformations in your description (e.g. “reflected and then translated” scores **0 marks**). Check the size first (changed size = **Enlargement**), then orientation (same way up = **Translation**; flipped = **Reflection**; turned = **Rotation**).

Example 1: Triangle *A* is reflected in the ***x*-axis** to *B*, then in the ***y*-axis** to *C*. Describe the **single** transformation from *A* to *C*.



(2,3) → (2,−3) → (−2,−3).
Half-turn around origin:
Rotation, 180°, about (0, 0)

Example 2: Shape *P* is translated by $\begin{pmatrix} 3 \\ -2 \end{pmatrix}$ then $\begin{pmatrix} -1 \\ 6 \end{pmatrix}$ to *Q*. Describe the single transformation.



Add vectors:
3 + (−1) = **2**; −2 + 6 = **4**
Translation $\begin{pmatrix} \mathbf{2} \\ \mathbf{4} \end{pmatrix}$

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