Guide to: Rotations

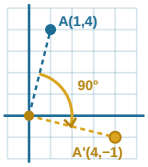
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Explanation:

To **describe a rotation** fully (3 marks), you must state three things: (1) the word **rotation**, (2) the **angle and direction** (**90° clockwise**, **90° anticlockwise**, or **180°** — note that 180° does not need a direction), and (3) the coordinates of the **centre of rotation**.

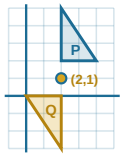
In the exam, always ask for **tracing paper**: trace the shape and draw a small arrow pointing North at the centre of rotation, hold your pencil tip firmly on the centre, and turn the tracing paper through the required angle.

Example 1: Point *A*(**1, 4**) is rotated **90° clockwise** about **(0, 0)**. Find the coordinates of *A′*.



From (0,0): **1 right, 4 up**.
90° CW → **4 right, 1 down**.
Answer: (4, −1)

Example 2: Triangle *P* (2,2), (2,5), (4,2) maps to *Q* (2,0), (2,−3), (0,0). Describe the transformation.



Turned upside down (**180°**).
Midpoint of (2,2) & (2,0) is **(2, 1)**.
Rotation, 180°, centre (2, 1)

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Corbettmaths (Practice)	Qs	Ans	**PMT (AQA)**	Qs	Ans
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