Name:

## GCSE (1-9)

## Rotations

## Instructions

- Use black ink or ball-point pen.
- Answer all Questions.
- Answer the Questions in the spaces provided
- there may be more space than you need.
- Diagrams are NOT accurately drawn, unless otherwise indicated.
- You must show all your working out.


## Information

- The marks for each Question are shown in brackets
- use this as a guide as to how much time to spend on each Question.


## Advice

- Read each Question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every Question.
- Check your answers if you have time at the end


Rotate triangle A $90^{\circ}$ clockwise about $(4,3)$.
(Total for question 1 is $\mathbf{2}$ marks)

2


Describe fully the single transformation that maps triangle A on triangle $\mathbf{B}$.


Rotate shape A $180^{\circ}$ about $(1,0)$
(Total for question $\mathbf{3}$ is $\mathbf{2}$ marks)

4


Describe fully the single transformation that maps triangle A on triangle B.

5


Rotate shape A $180^{\circ}$ about $O$.

6


Rotate shape A $90^{\circ}$ clockwise about centre $O$.


Describe fully the single transformation that maps triangle A on triangle $\mathbf{B}$.
$\qquad$


Describe fully the single transformation that maps triangle $\mathbf{P}$ on triangle $\mathbf{Q}$.

