

Reflections

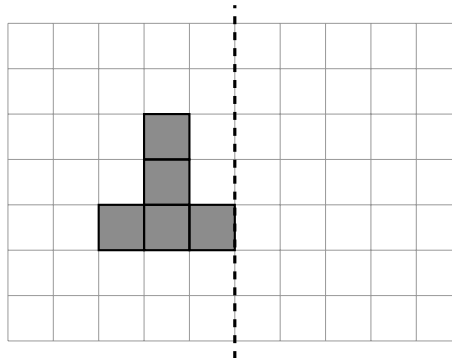
For AQA GCSE Mathematics (8300) • Foundation tier

Name _____

Total marks: **22**

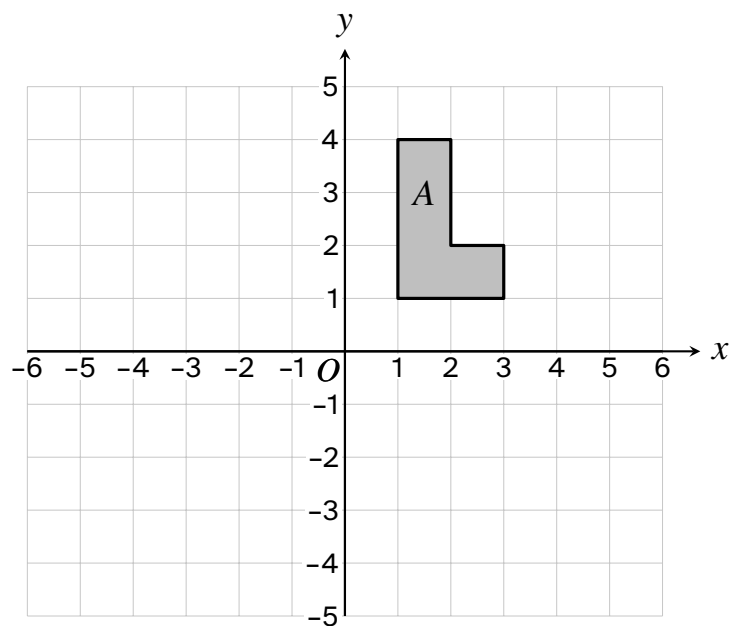
Answer **all** questions in the spaces provided. Show your working: marks are given for correct method.

- 1** Reflect the shaded shape in the mirror line.



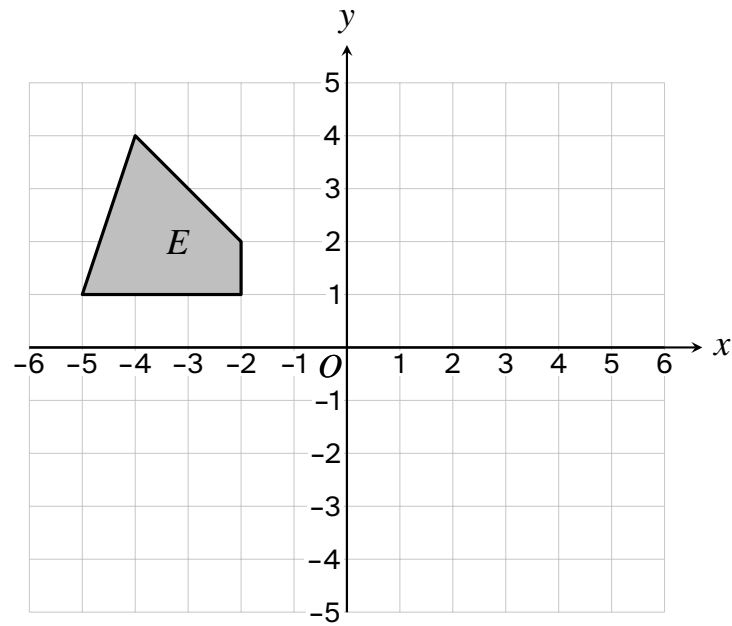
[1 mark]

- 2** Reflect shape *A* in the *y*-axis.



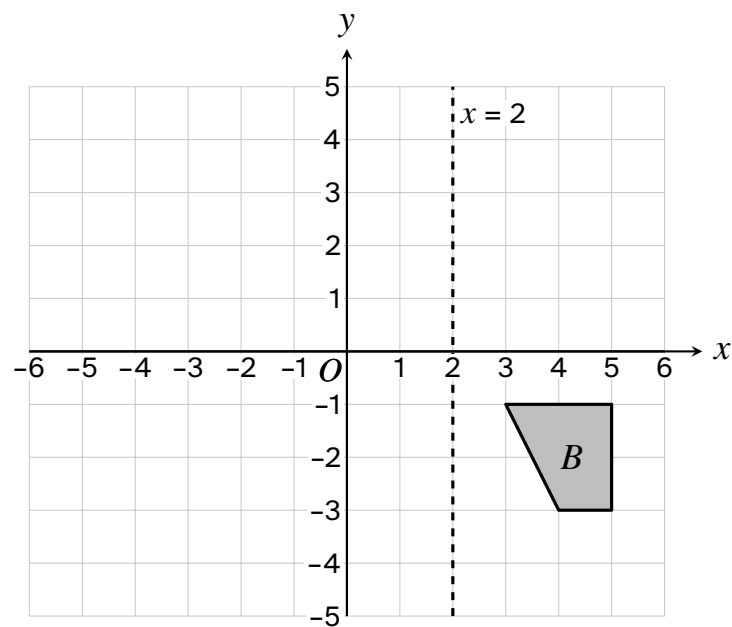
[2 marks]

- 3 Reflect shape E in the x -axis.



[2 marks]

- 4 Reflect shape B in the line $x = 2$



[2 marks]

- 5** (a) Triangle T has vertices $(1, 1)$, $(4, 1)$ and $(4, 3)$
 T is reflected in the x -axis.
 Write down the coordinates of the image of the vertex $(4, 3)$

[1 mark]

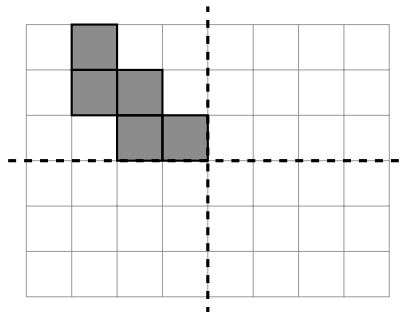
Answer (_____ , _____)

- (b) Point C has coordinates $(2, 5)$
 C is reflected in the line $x = 6$ to point D .
 Work out the coordinates of D .

[1 mark]

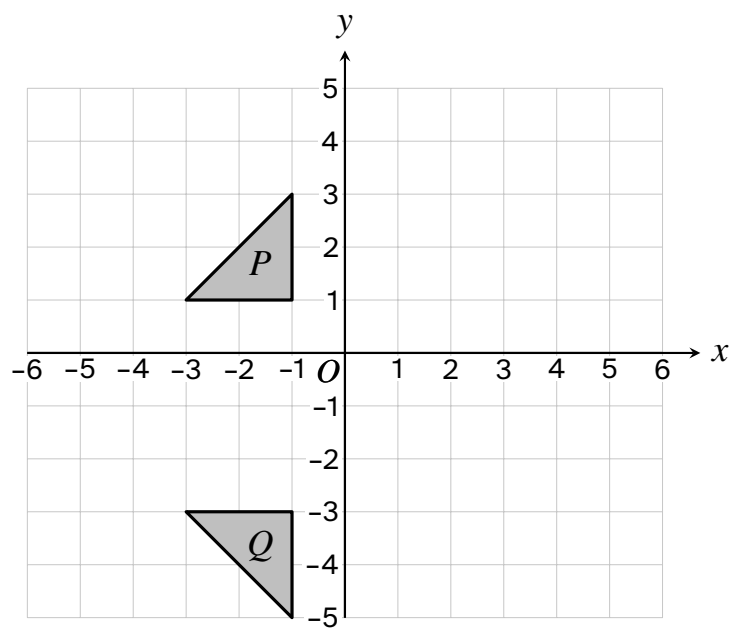
Answer (_____ , _____)

- 6** The dashed lines are both mirror lines.
 Shade squares to complete the pattern.



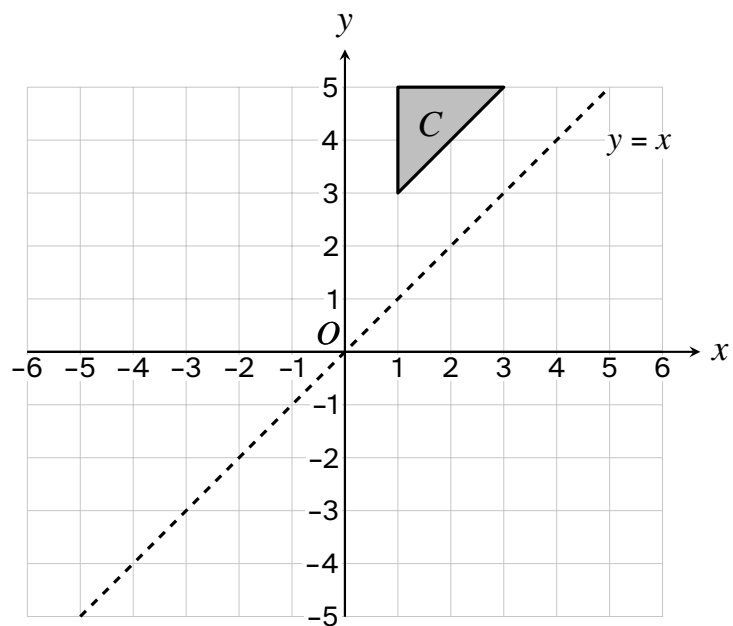
[2 marks]

- 7 Describe fully the single transformation that maps triangle P onto triangle Q .



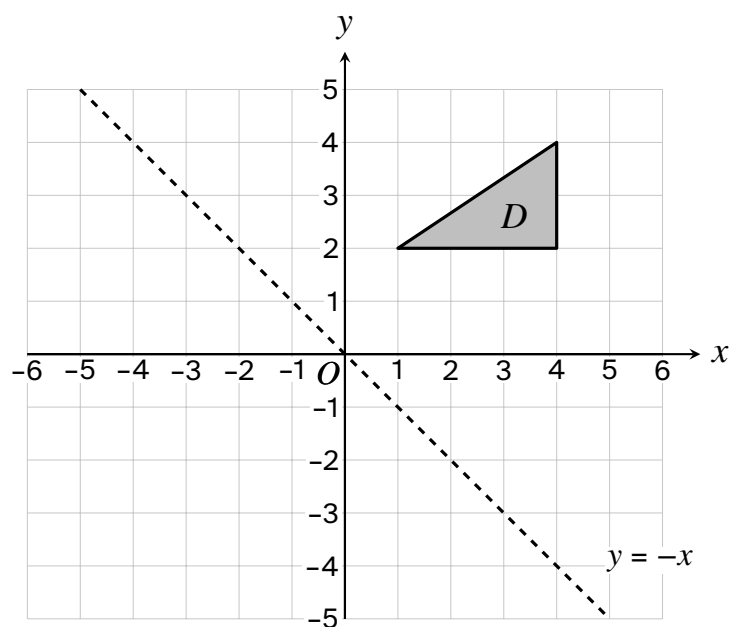
[2 marks]

- 8 Reflect triangle C in the line $y = x$



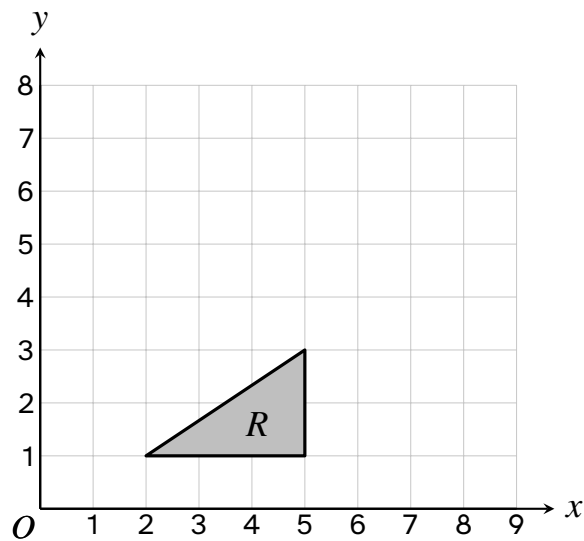
[2 marks]

- 9 Reflect shape D in the line $y = -x$



[2 marks]

- 10** Triangle R is reflected in a horizontal mirror line.
The image of the vertex $(2,1)$ is $(2,7)$



- (a) What is the equation of the mirror line?

[1 mark]

Answer _____

- (b) Work out the coordinates of the image of the vertex $(5,3)$

[1 mark]

Answer (_____ , _____)

- 11** Kai says,

‘To reflect a point in the line $y = x$, swap the coordinates and change both signs.’

Is Kai correct?

Give a reason for your answer.

[1 mark]

- 12** A rectangle has lines of symmetry $x = 2$ and $y = 3$
One vertex of the rectangle is at $(-1, 5)$
Work out the coordinates of the other three vertices.

[2 marks]

Answer _____