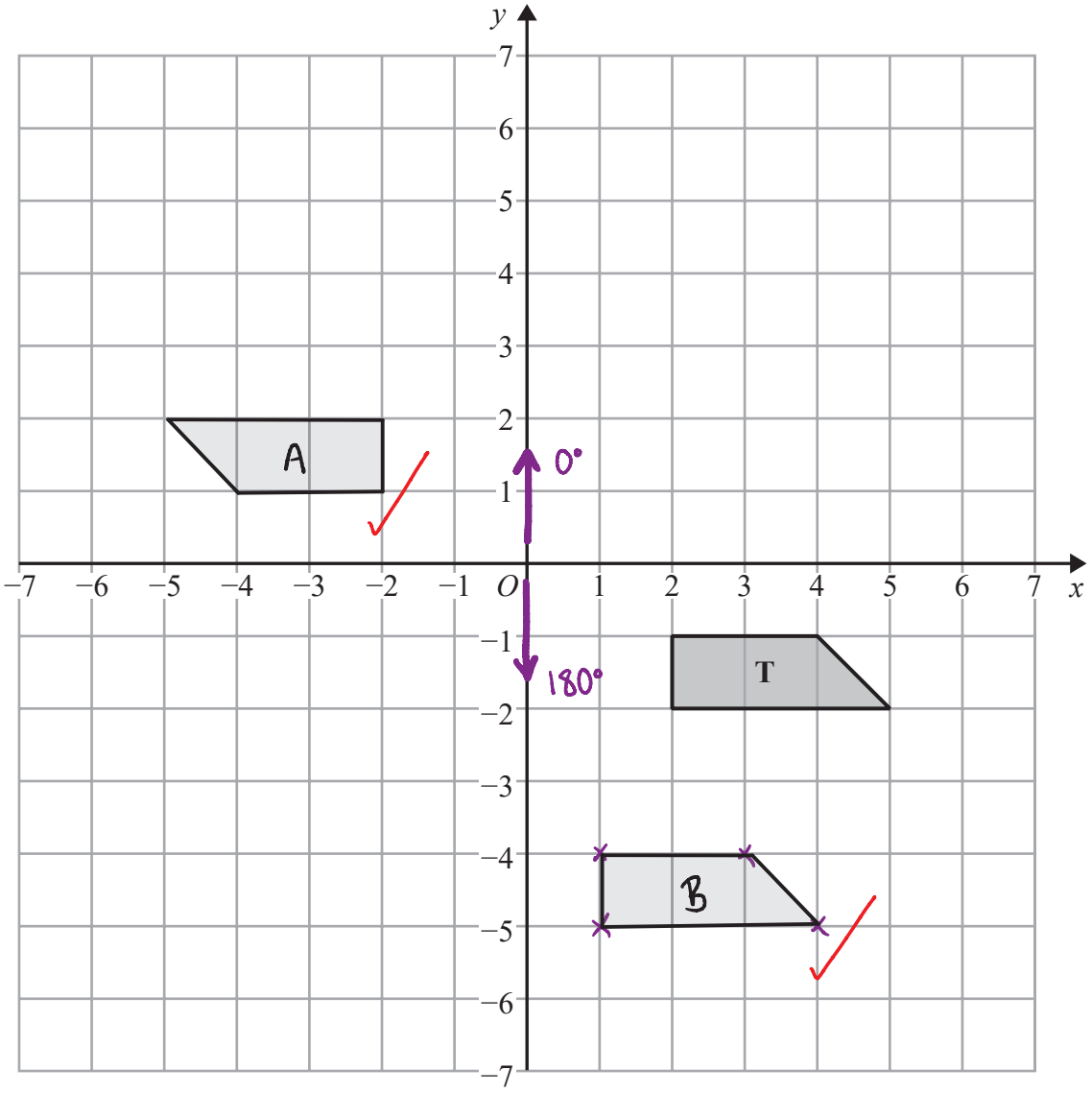
1.



(a) Rotate trapezium **T** 180° about the origin.
Label the new trapezium **A**.

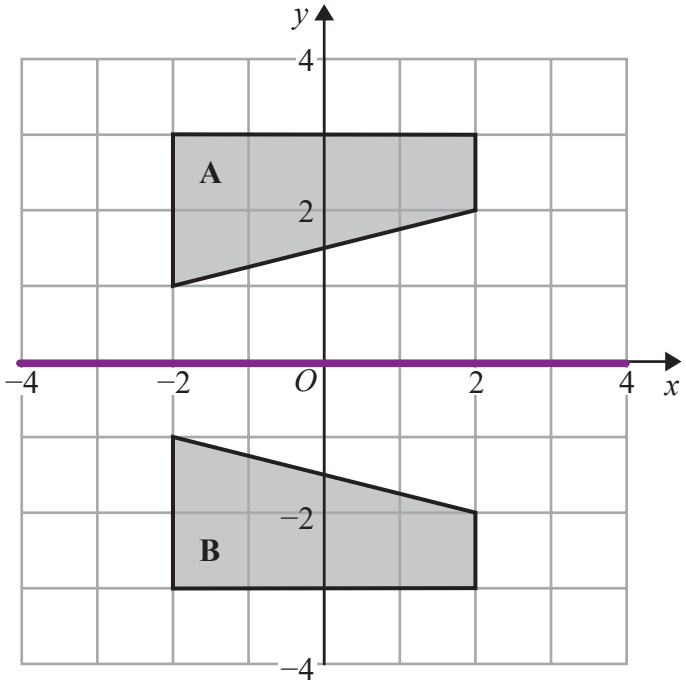
(1)

(b) Translate trapezium **T** by the vector $\begin{pmatrix} -1 \\ -3 \end{pmatrix}$ ← x ← y
Label the new trapezium **B**.

(1)

(Total for Question is 2 marks)

2.



Describe fully the single transformation that maps shape **A** onto shape **B**.

Reflection in the x-axis

(Total for Question is 2 marks)

Cotton : Gum
2 : 5

Cotton
2m costs £6
(÷2) (÷2)
1m costs £3

Gum
2m costs £15
(÷2) (÷2)
1m costs £7.50

2 : 5
(×3) (×3)
6 : 15 ← Price of 3m

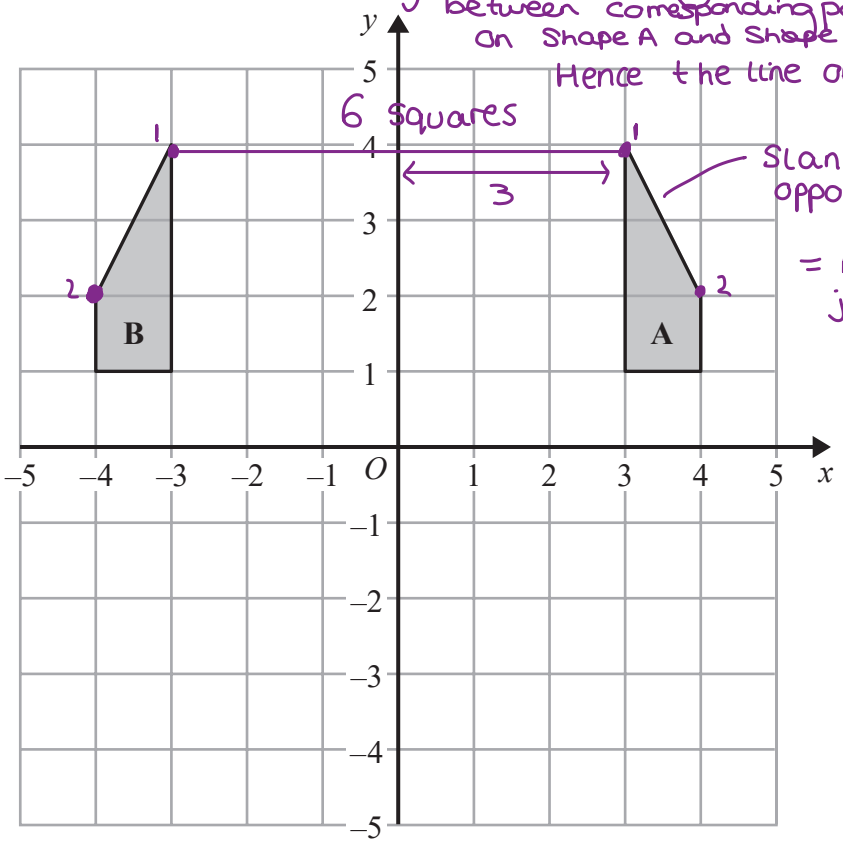
3×6 = £18
3×8 = £24
3×9 = £27

6×7.50 = £45
8×7.50 = £60
9×7.50 = £67.50

£18 £24 £27

£15 £45 £60 £67.50

3.



y axis is vertically halfway between corresponding points on Shape A and Shape B.
Hence the line of reflection is when $x=0$.

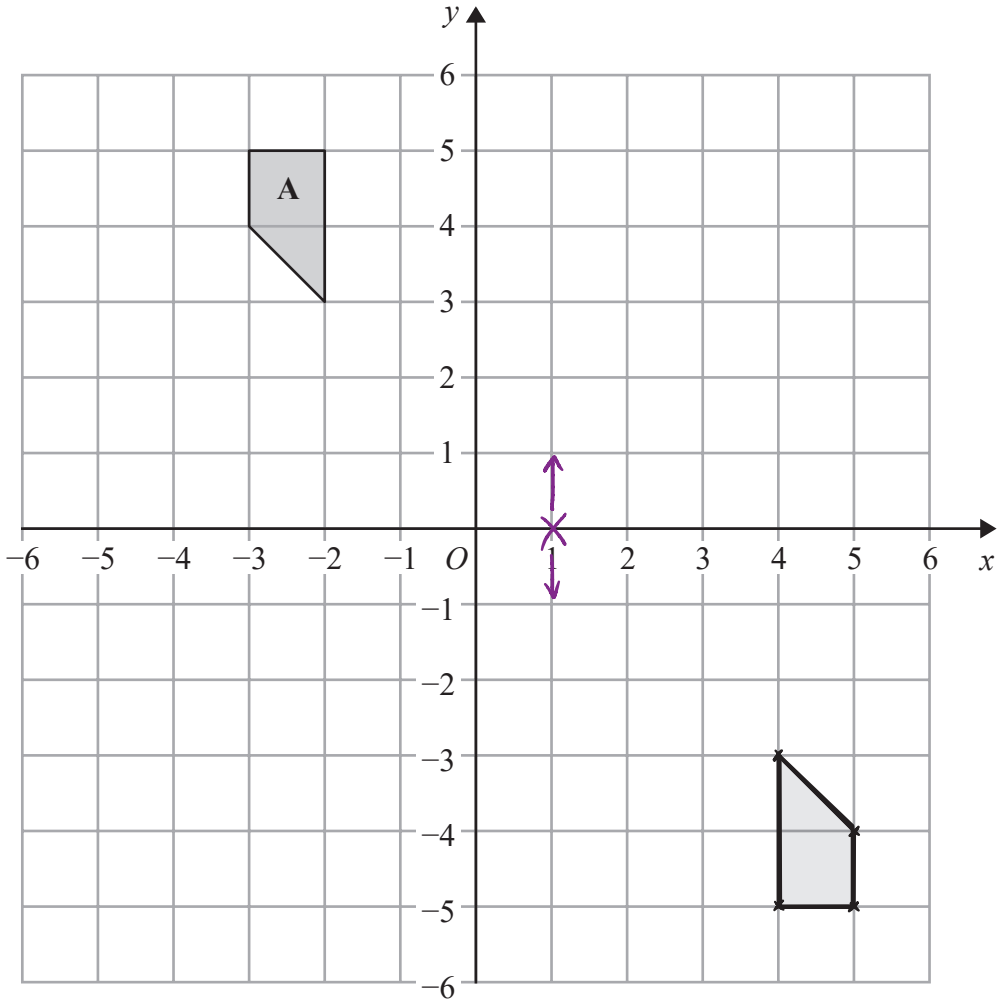
Slanted edge is on opposite sides of the shape
= reflection (it can't just be a simple translation).

Describe fully the single transformation that maps shape **A** onto shape **B**.

reflection (1) in the y-axis (1)

(Total for Question is 2 marks)

4.

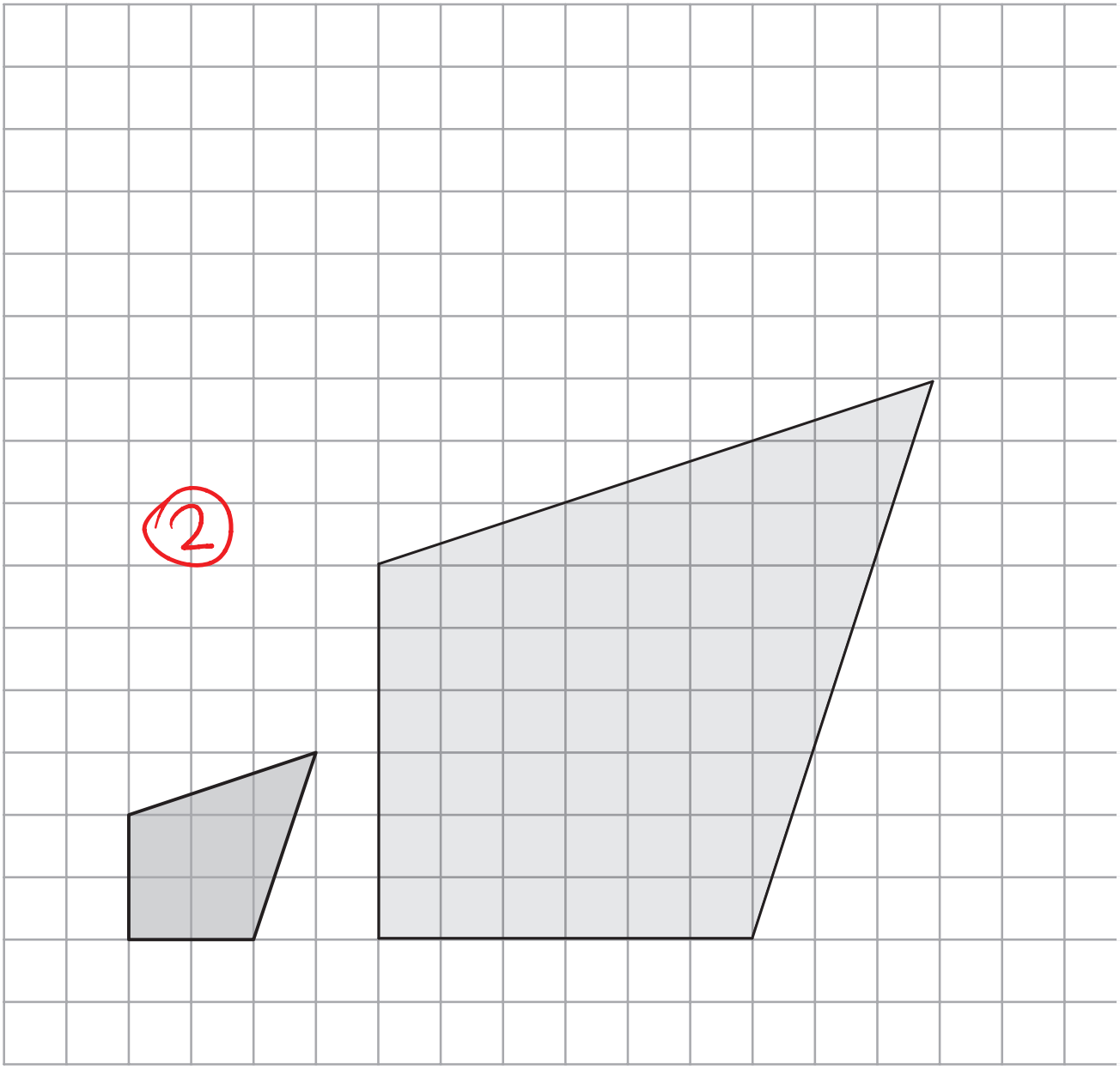


x y

Rotate shape **A** 180° about (1, 0)

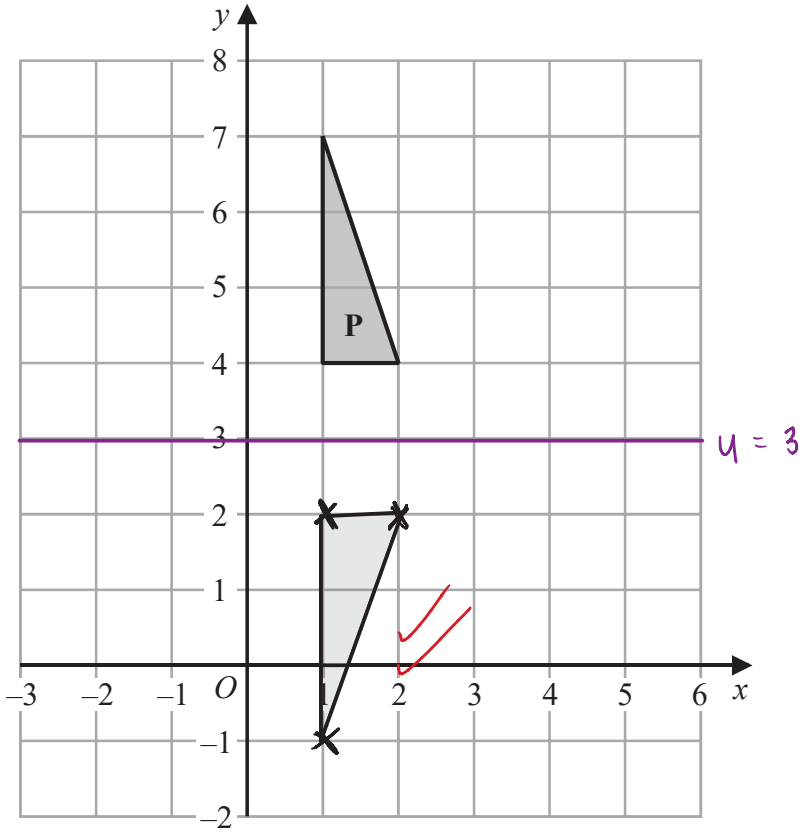
(Total for Question is 2 marks)

5.



On the grid, draw an enlargement of the shaded shape with a scale factor of 3

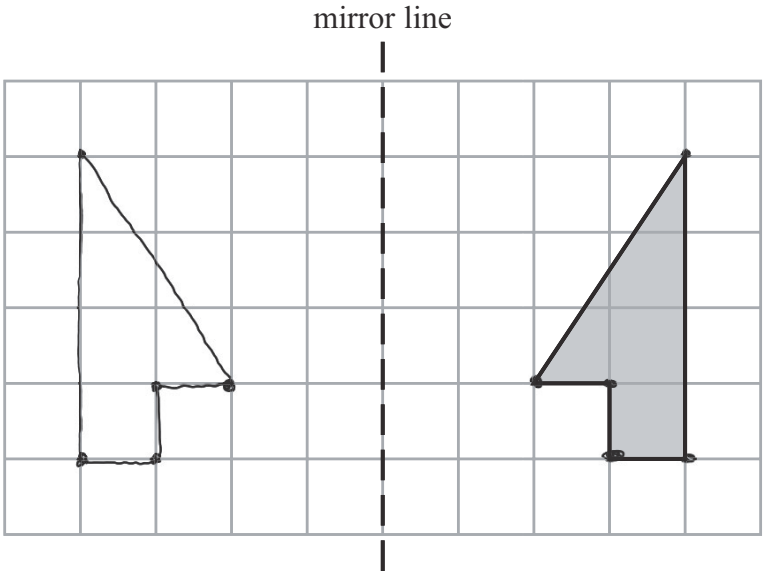
6.



Reflect shape **P** in the line $y = 3$

(Total for Question is 2 marks)

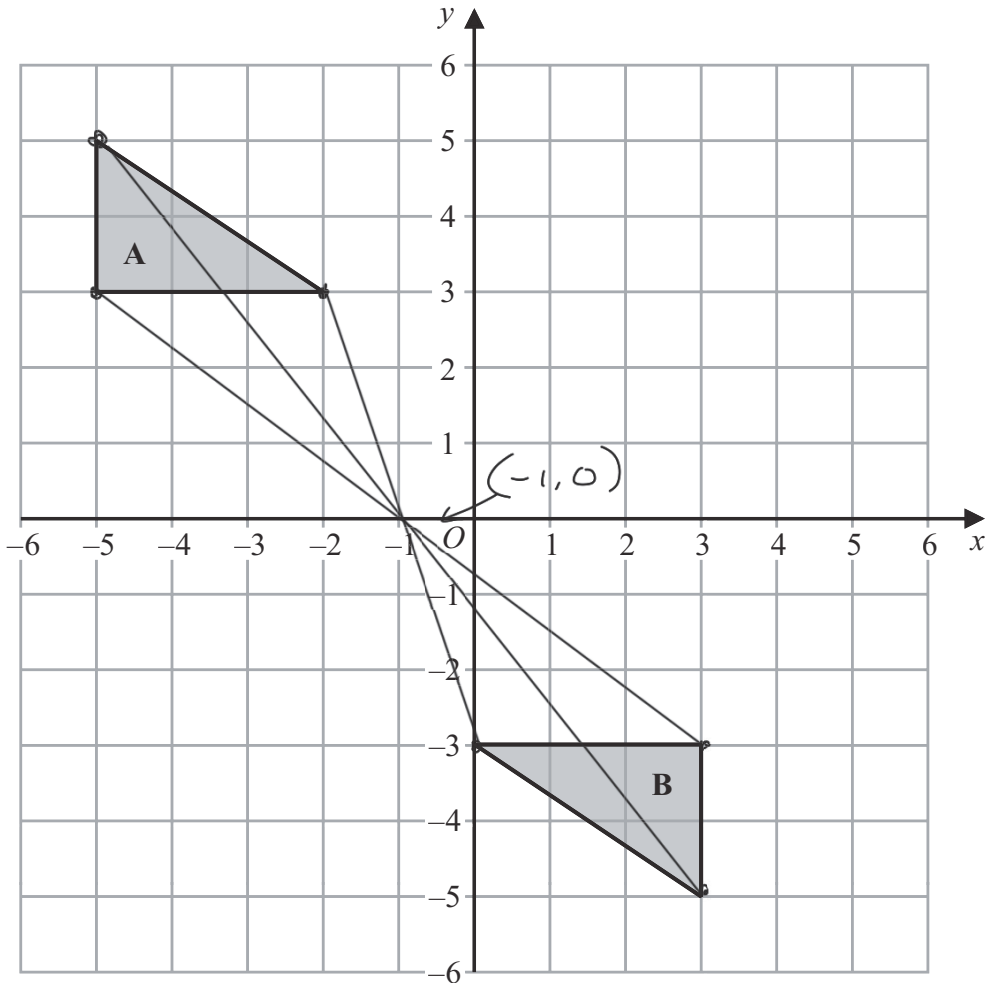
7.



Reflect the shaded shape in the mirror line.

(Total for Question is 2 marks)

8.



Describe fully the single transformation that maps triangle **A** onto triangle **B**.

Rotation of 180° ✓1 about the point (-1, 0) ✓2

(Total for Question is 2 marks)

9. Reflect shape **A** in the mirror line.