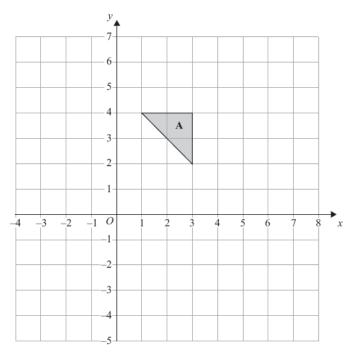


Triangle  ${\bf A}$  and triangle  ${\bf B}$  are drawn on the grid.

(a) Describe fully the single transformation which maps triangle A onto triangle B.

.....

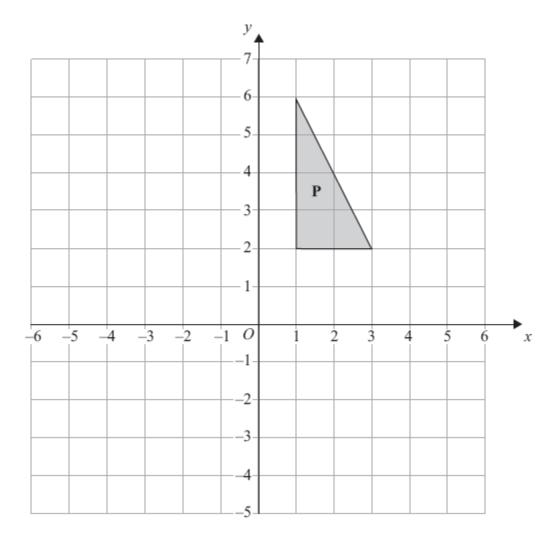
(3)



(b) Reflect triangle **A** in the line x = 4

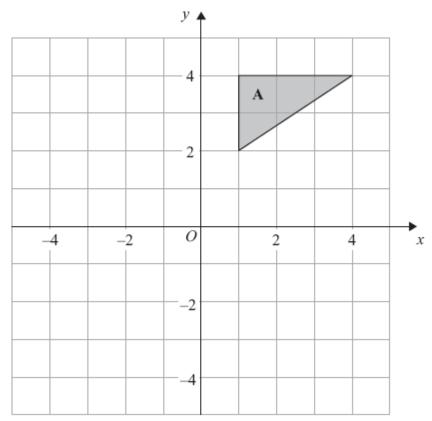
**(2)** 

(5 marks)



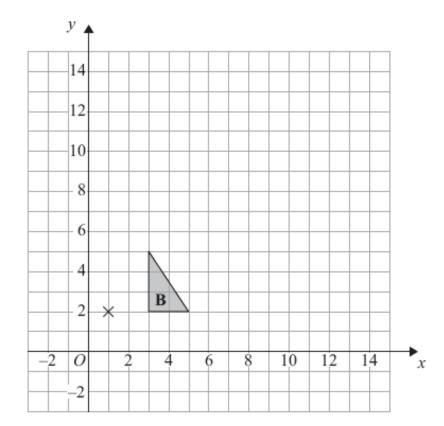
Triangle  $\mathbf{P}$  is drawn on a coordinate grid.

(3 marks
Describe fully the single transformation which maps triangle $\mathbf{P}$ onto triangle $\mathbf{Q}$ .
The manager I as reasonable and the same is a manager to the graph of
The triangle <b>P</b> is reflected in the line $x = -1$ and then reflected in the line $y = 1$ to give triangle <b>Q</b> .



(a) Rotate triangle A  $90^{\circ}$  clockwise, centre O.

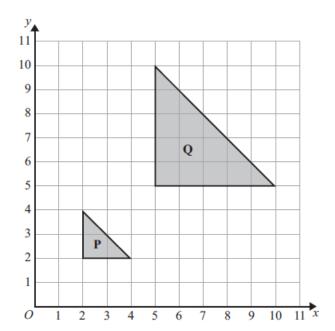
**(2)** 



(b) Enlarge triangle  $\bf B$  by scale factor 3, centre (1, 2).

(3)

(5 marks)

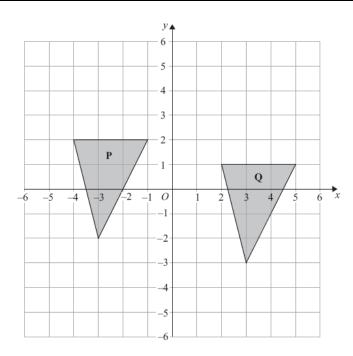


Describe fully the single transformation that maps shape  ${\bf P}$  onto shape  ${\bf Q}$ .

.....

(3 marks)

5.

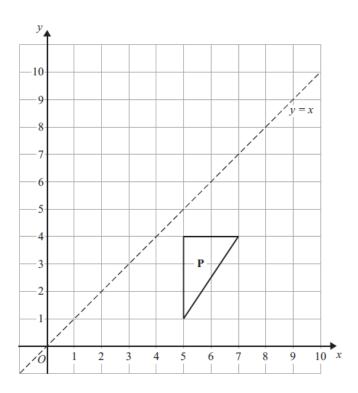


Describe fully the single transformation that maps triangle  ${\bf P}$  onto triangle  ${\bf Q}$ .

.....

(3 marks)

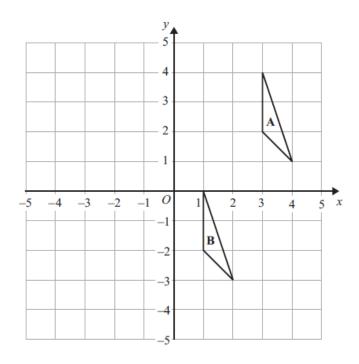
**6.** (a)



Reflect shape **P** in the line y = x

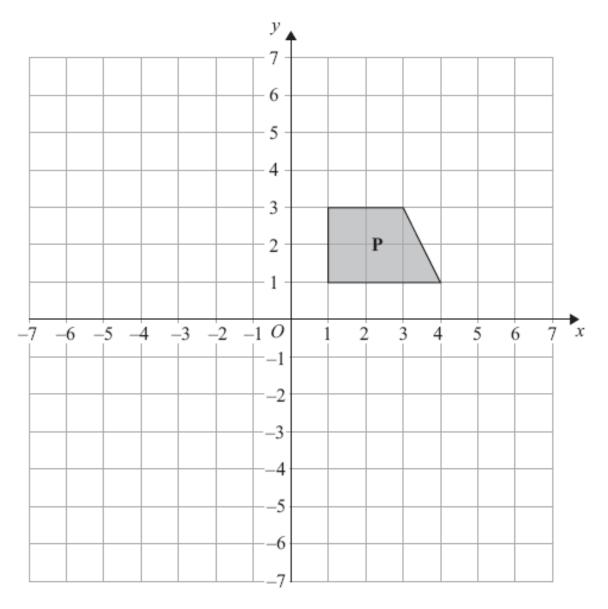
**(2)** 

(b)



Describe fully the single transformation that maps triangle <b>A</b> onto triangle <b>B</b> .	
	<b>(2)</b>

(4 marks)

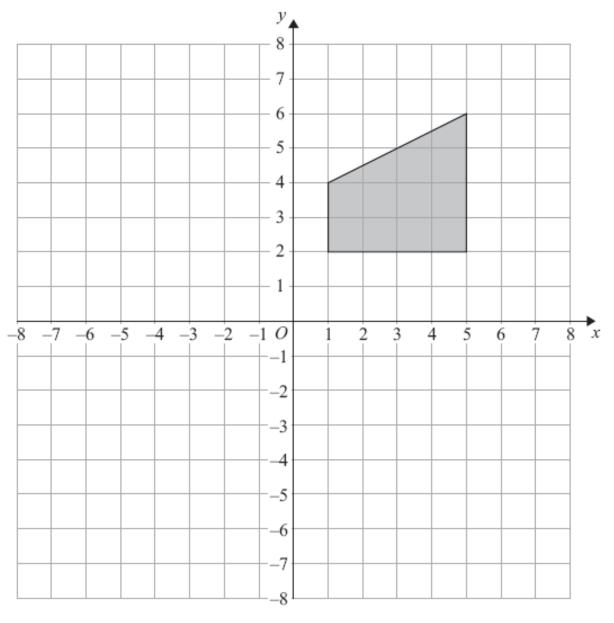


Shape **P** is reflected in the line x = -1 to give shape **Q**.

Shape <b>Q</b> is reflected in the line $y = 0$ to give shape <b>R</b> .	

Describe fully the <b>single</b> transformation that maps shape <b>P</b> onto shape <b>R</b> .

(3 marks)



Rotate the shaded shape  $90^{0}$  clockwise about the point (1, -1).

(3 marks)