8

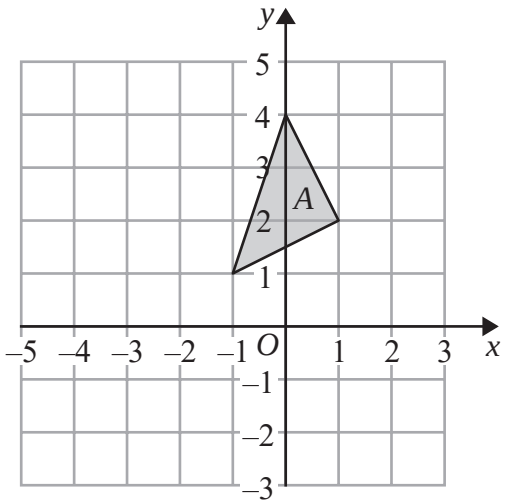

Figure 3

Figure 3 shows a triangle, *A*, drawn on a grid.

Triangle *A* is transformed to triangle *B* under the transformation with matrix **P** where

$$\mathbf{P} = \begin{pmatrix} 2 & -1 \\ \frac{3}{2} & -\frac{1}{2} \end{pmatrix}$$

(a) On the grid in Figure 3, draw and label triangle *B*.

(4)

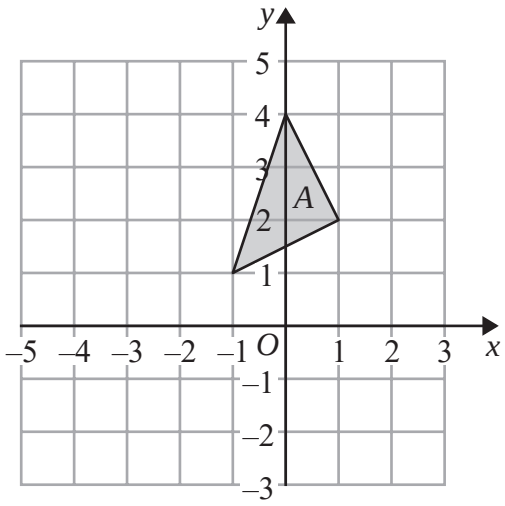

Figure 4

Figure 4 shows triangle *A* drawn on a grid.

Triangle *B* is transformed to triangle *C* under the transformation with matrix **Q** where

$$\mathbf{Q} = \begin{pmatrix} 3 & -4 \\ 1 & -2 \end{pmatrix}$$

(b) On the grid in Figure 4, draw and label triangle *C*.

(3)

Triangle *C* is the image of triangle *A* under a **single** transformation.

(c) Describe fully this transformation.

(2)

Turn over for a spare copy of Figure 3 and Figure 4 if you need to redraw your triangles.

Question 8 continued

Question 8 continued

Only use these grids if you need to redraw your triangles.

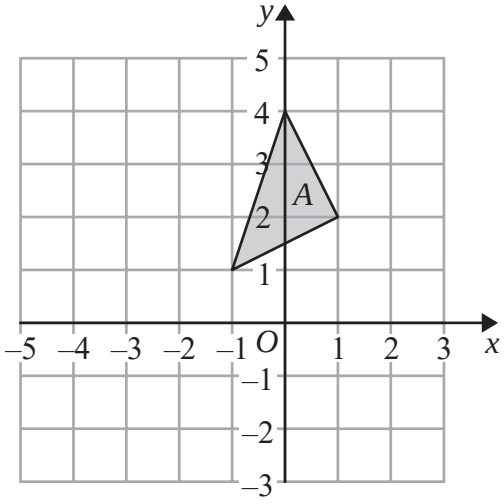

Figure 3

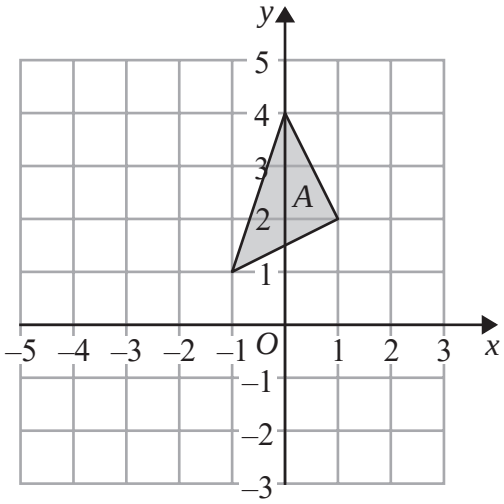

Figure 4

(Total for Question 8 is 9 marks)