6 Triangle *A* is drawn on the grid opposite.

Triangle *A* is reflected in the line with equation $x = -1$ to give triangle *B*.

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

(2)

Triangle *A* is transformed to triangle *C* under a rotation of 90° clockwise about the point with coordinates (1, 0)

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

(2)

Triangle *B* is transformed to triangle *D* under the translation $\begin{pmatrix} 2 \\ -5 \end{pmatrix}$

(c) On the grid, draw and label triangle *D*.

(2)

Triangle *A* is transformed to triangle *E* under the transformation with matrix **M** where

$$\mathbf{M} = \begin{pmatrix} 1 & 0 \\ 0 & -1 \end{pmatrix}$$

(d) On the grid, draw and label triangle *E*.

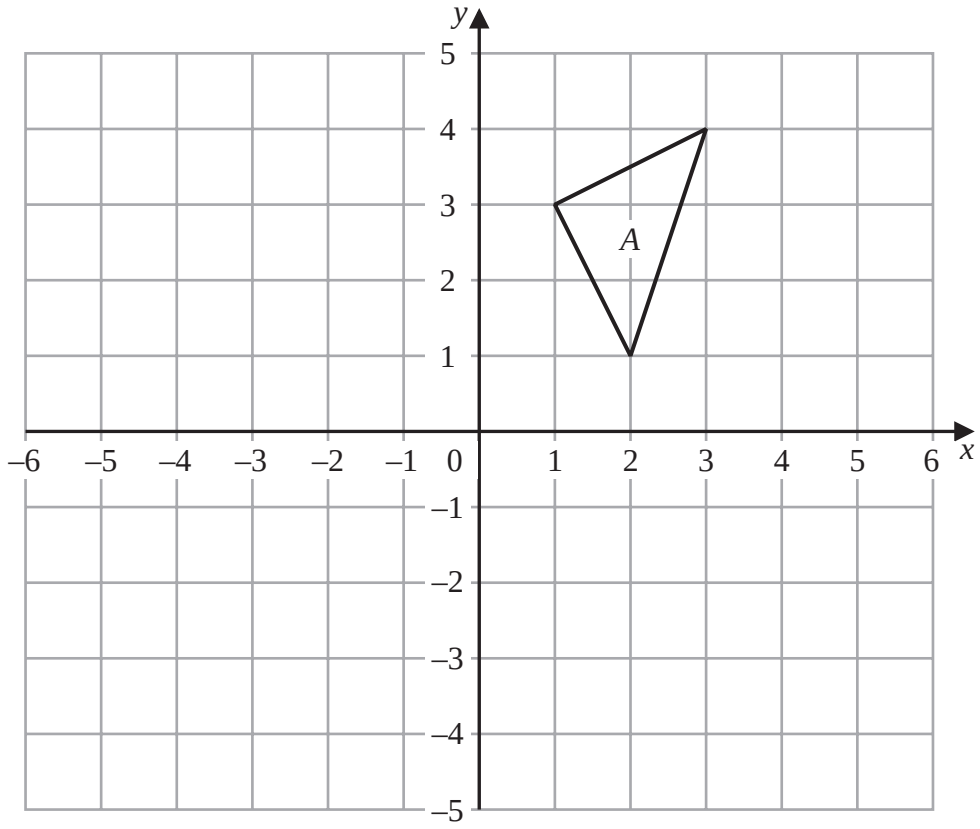
(2)

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

(e) Describe fully this transformation.

(3)

Question 6 continued

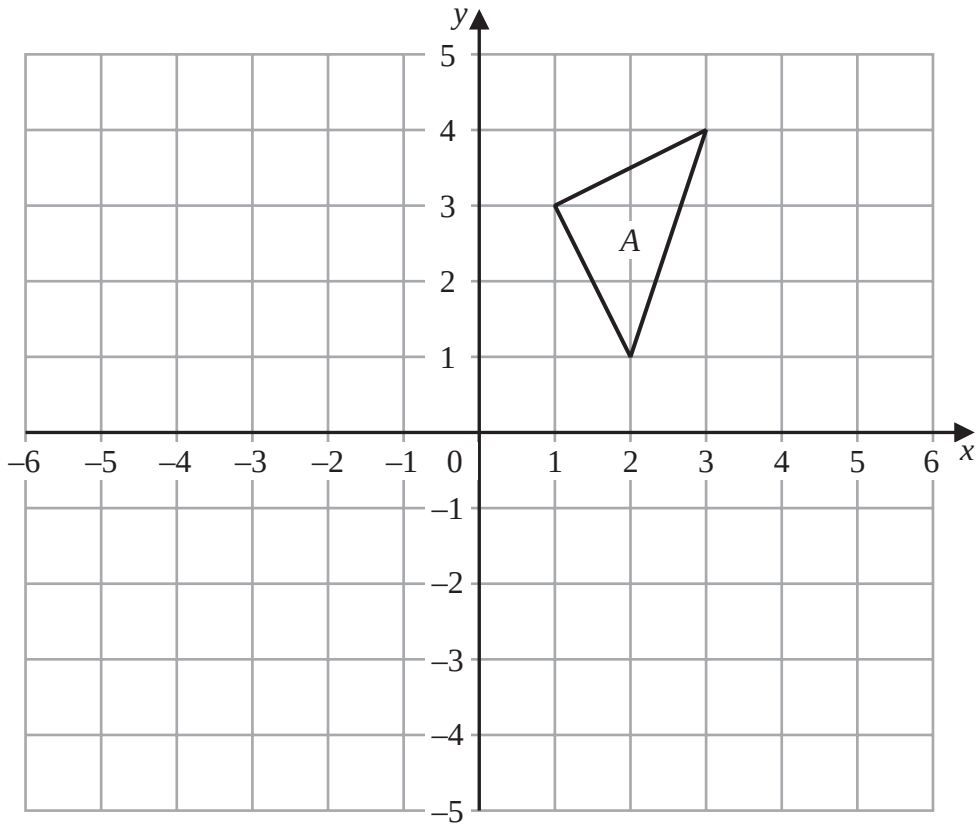


Turn over for a spare grid if you need to redraw your triangles.

Question 6 continued

Question 6 continued

Only use this grid if you need to redraw your triangles.



(Total for Question 6 is 11 marks)