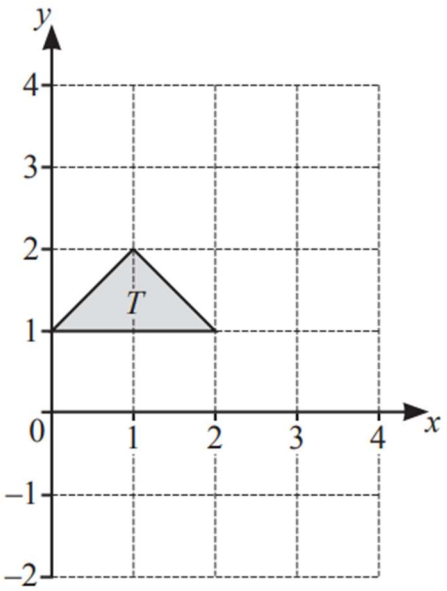
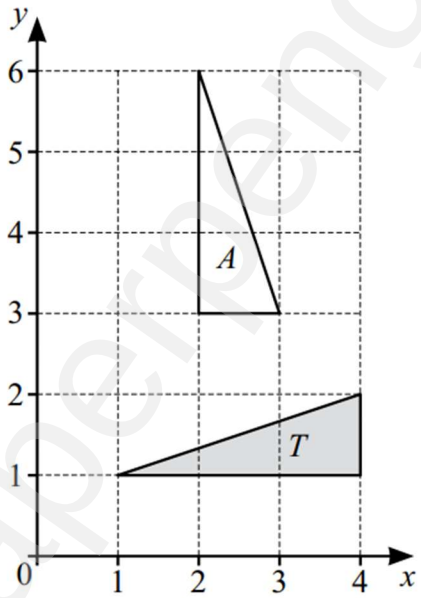
6



Rotate triangle T 90° clockwise about the point (2, 1). [2]

15

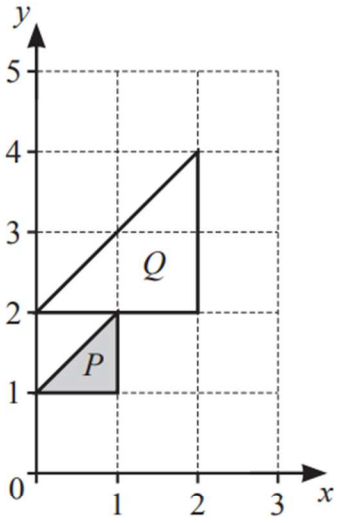


Describe fully the **single** transformation that maps triangle T onto triangle A.

.....

..... [3]

12 (a)

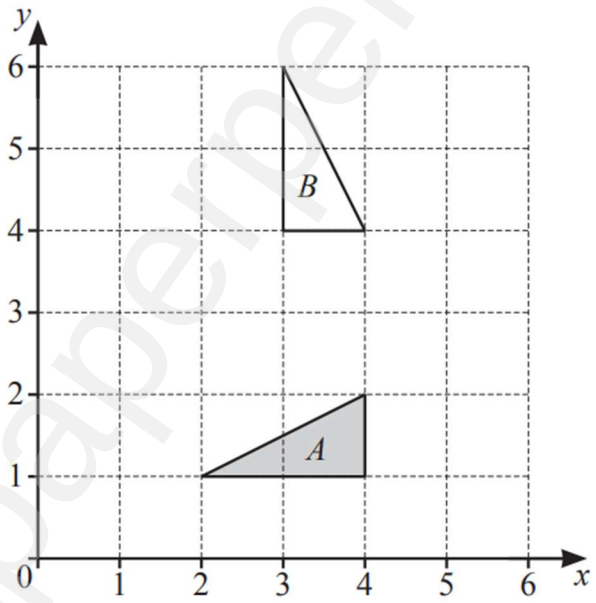


Describe fully the **single** transformation that maps triangle P onto triangle Q.

.....

..... [3]

14

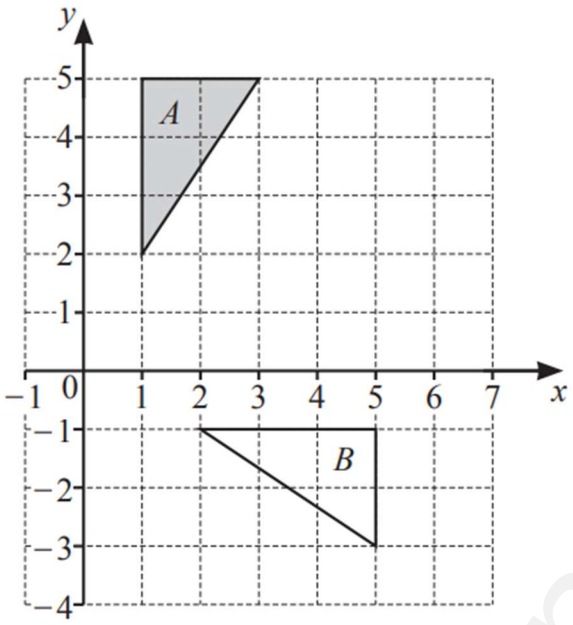


Describe fully the **single** transformation that maps triangle A onto triangle B.

.....

..... [3]

8

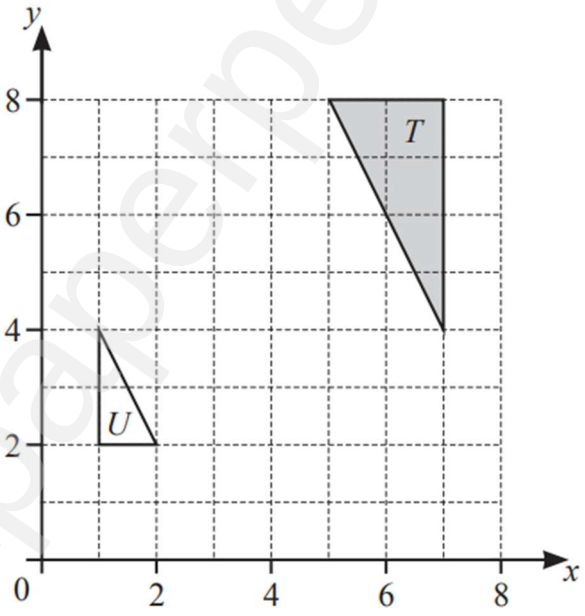


Describe fully the **single** transformation that maps triangle *A* onto triangle *B*.

.....

..... [3]

18

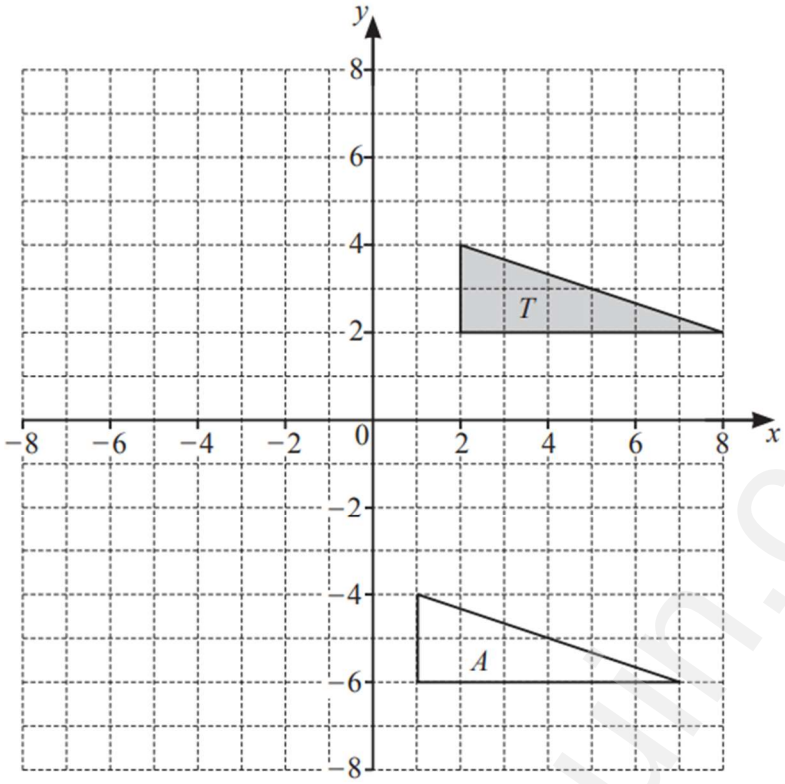


Describe fully the **single** transformation that maps triangle *T* onto triangle *U*.

.....

..... [3]

10



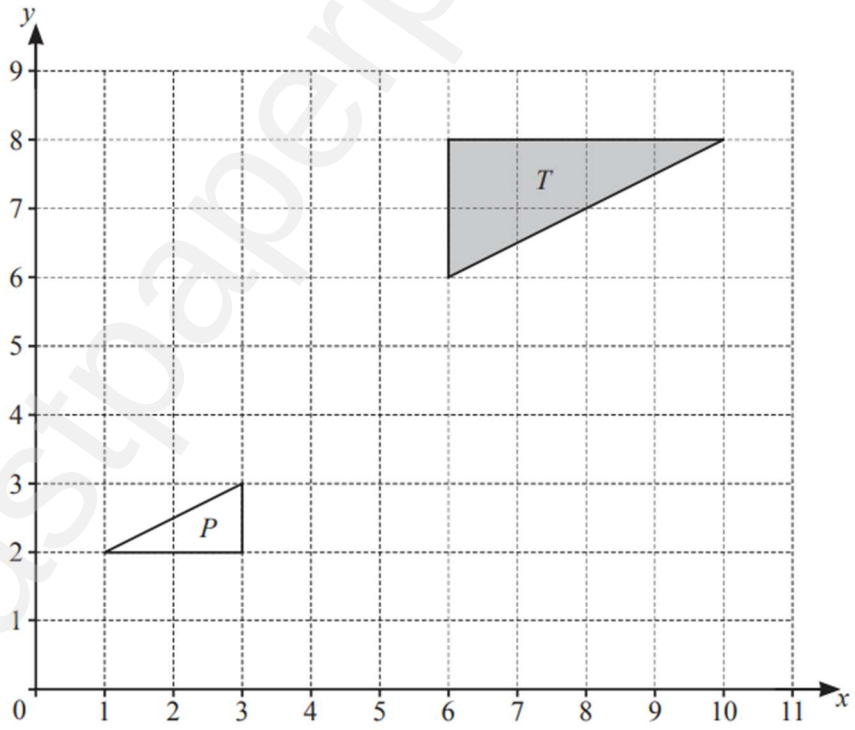
(a) Describe fully the **single** transformation that maps triangle T onto triangle A.

.....

..... [2]

(b) Draw the image of triangle T after an enlargement, scale factor $-\frac{1}{2}$, centre (0, 0). [2]

16

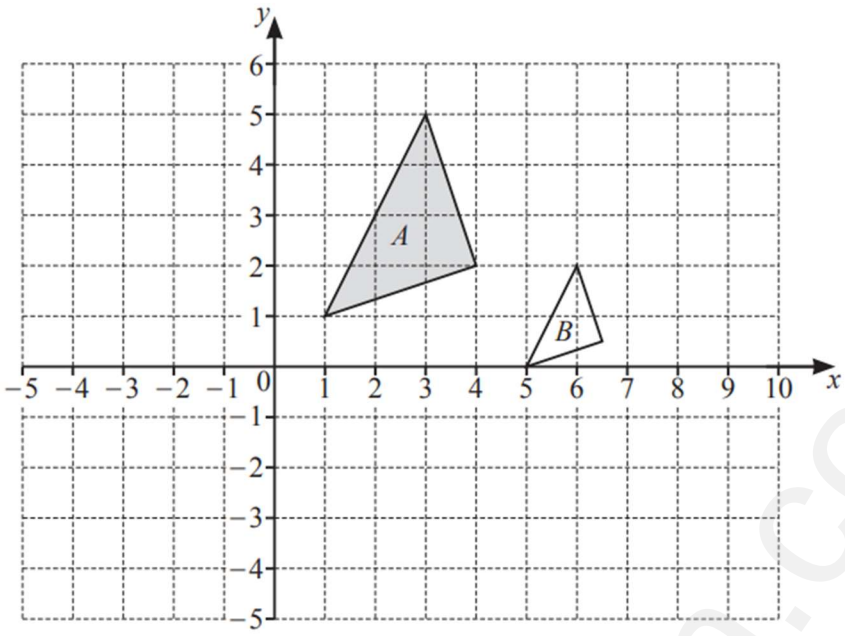


Describe fully the **single** transformation that maps triangle T onto triangle P.

.....

..... [3]

8



(a) On the grid, draw the image of

(i) triangle A after a reflection in the y-axis, [1]

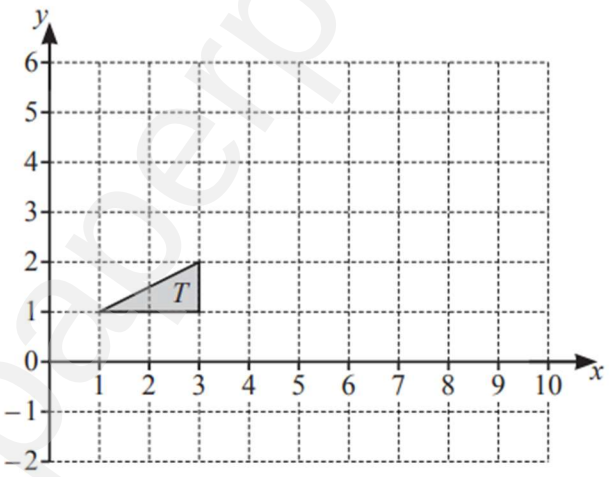
(ii) triangle A after a translation by the vector $\begin{pmatrix}-3\\-4\end{pmatrix}$. [2]

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

.....

..... [3]

4 (a)



(i) Enlarge triangle T by scale factor 3, centre (0, 2). [2]

(ii) **(a)** Rotate triangle T about (4, 2) by 90° clockwise.
Label the image P. [2]

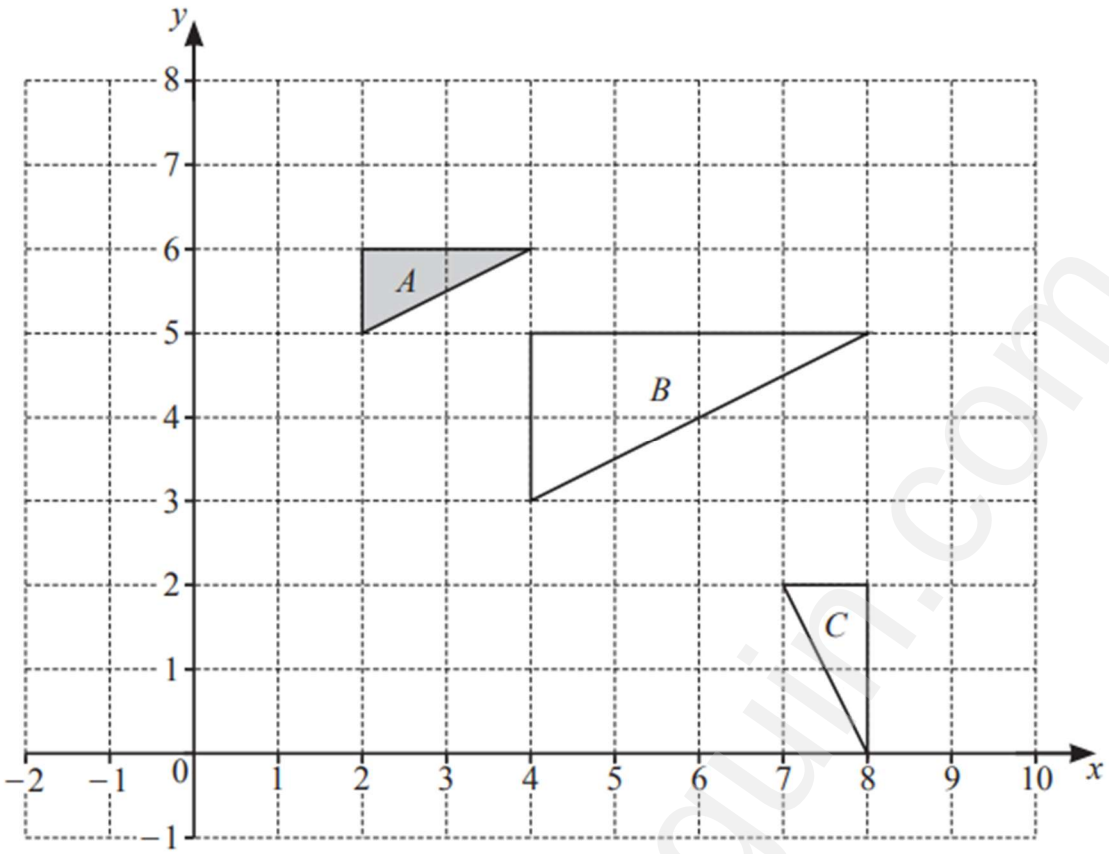
(b) Reflect triangle T in the line $x+y=6$.
Label the image Q. [3]

(c) Describe fully the **single** transformation that maps triangle P onto triangle Q.

.....

..... [2]

11



Describe the **single** transformation that maps

(a) triangle *A* onto triangle *B*

.....

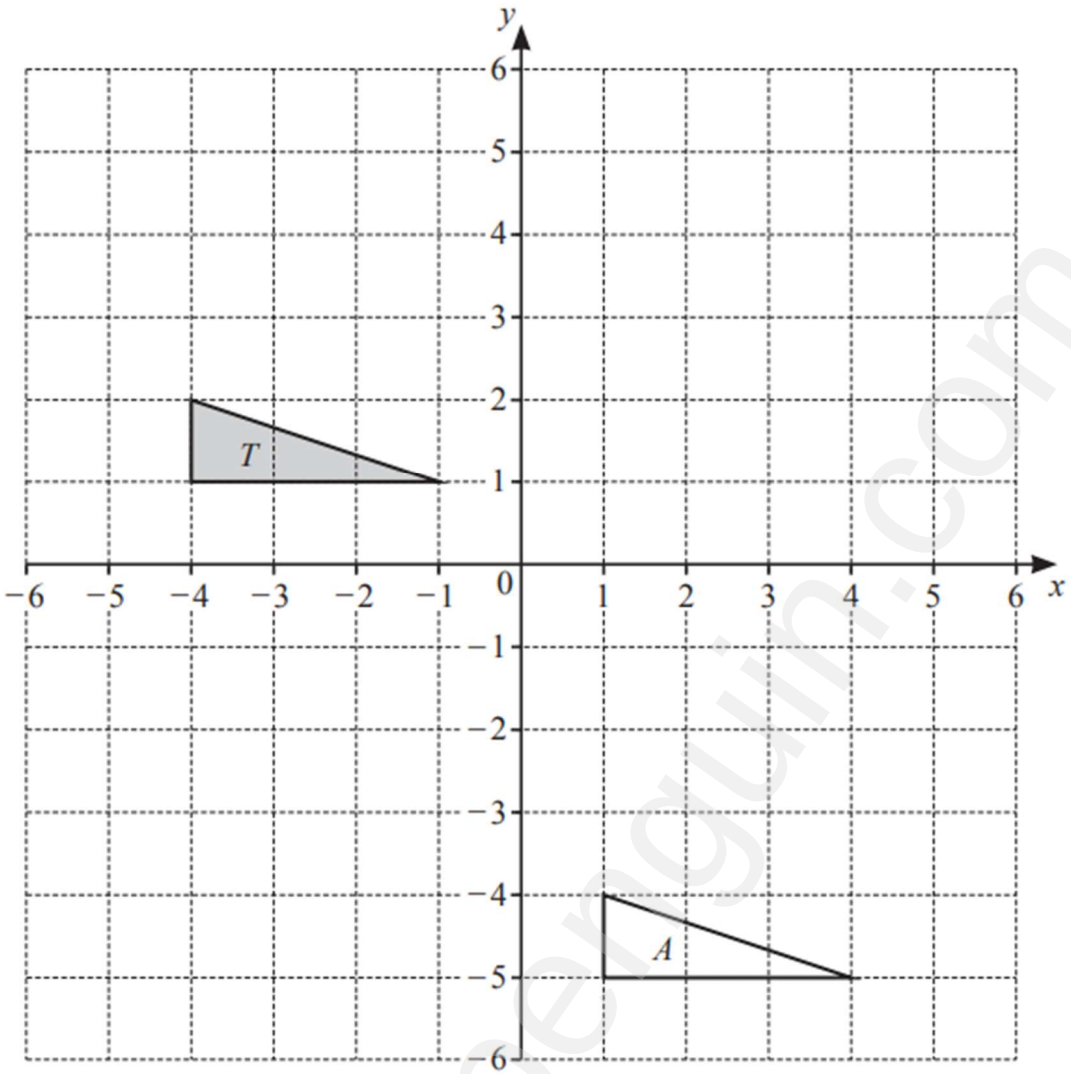
..... [3]

(b) triangle *A* onto triangle *C*.

.....

..... [3]

4



(a) Draw the image of triangle T after a reflection in the line $y = -1$. [2]

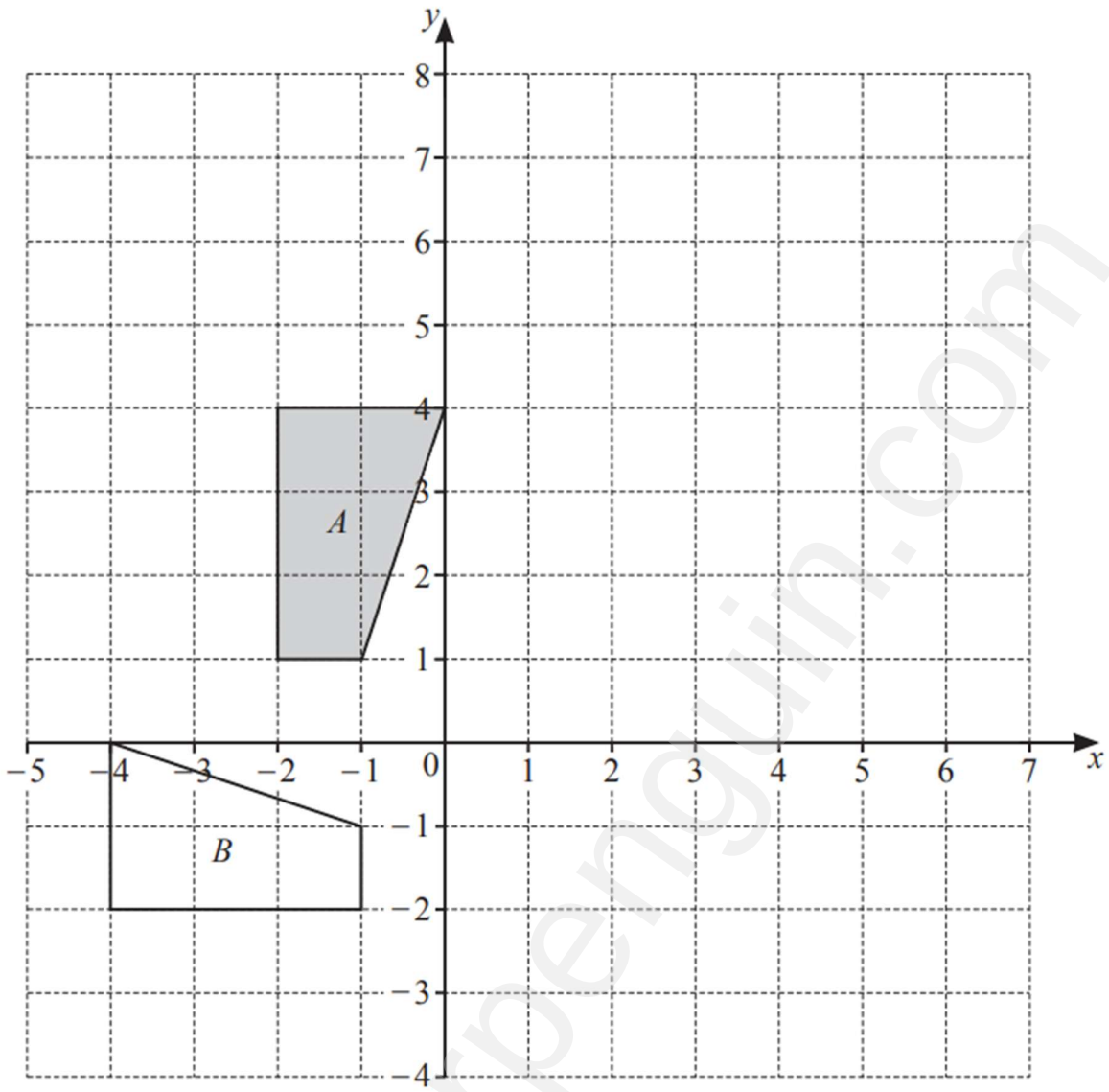
(b) Draw the image of triangle T after a rotation through 90° clockwise about (0, 0). [2]

(c) Describe fully the **single** transformation that maps triangle T onto triangle A.

.....

..... [2]

7 **(a)**



(i) On the grid, draw the image of

(a) shape A after an enlargement, scale factor 2, centre (0, 1), [2]

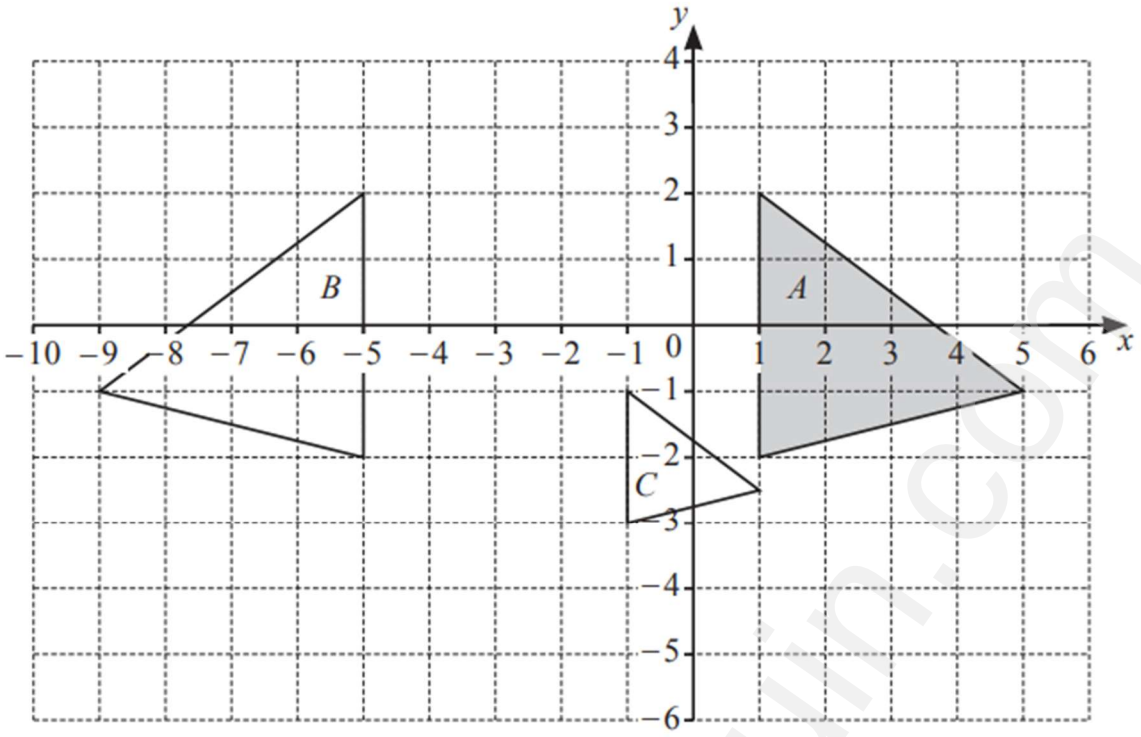
(b) shape A after a reflection in the line $y = x - 1$. [3]

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

.....

..... [3]

15



(a) Describe fully the **single** transformation that maps

(i) triangle A onto triangle B

.....

..... [2]

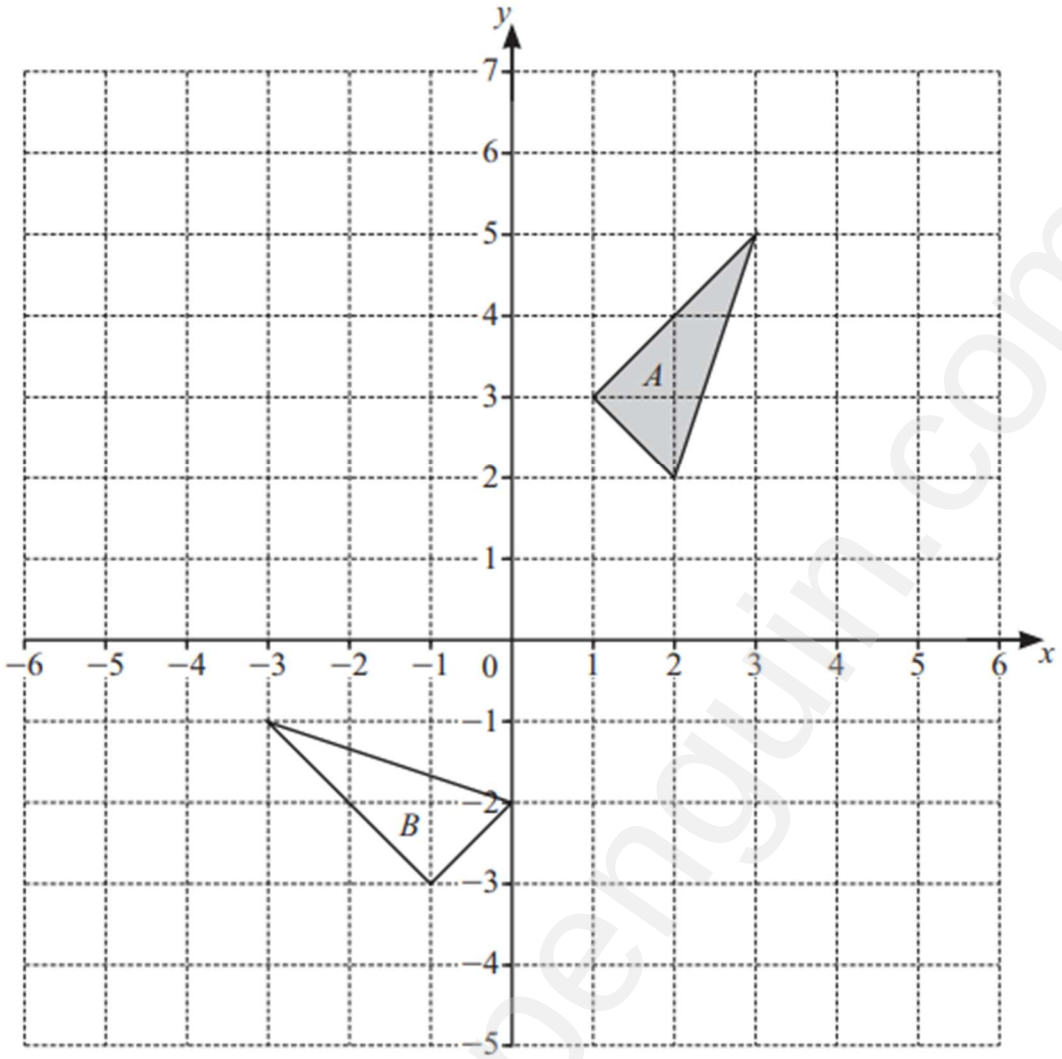
(ii) triangle A onto triangle C.

.....

..... [3]

(b) Draw the image of triangle A after a rotation, 90° clockwise, about (1, 3). [2]

10



(a) Draw the image of

(i) triangle A after a reflection in the line $y = 1$ [2]

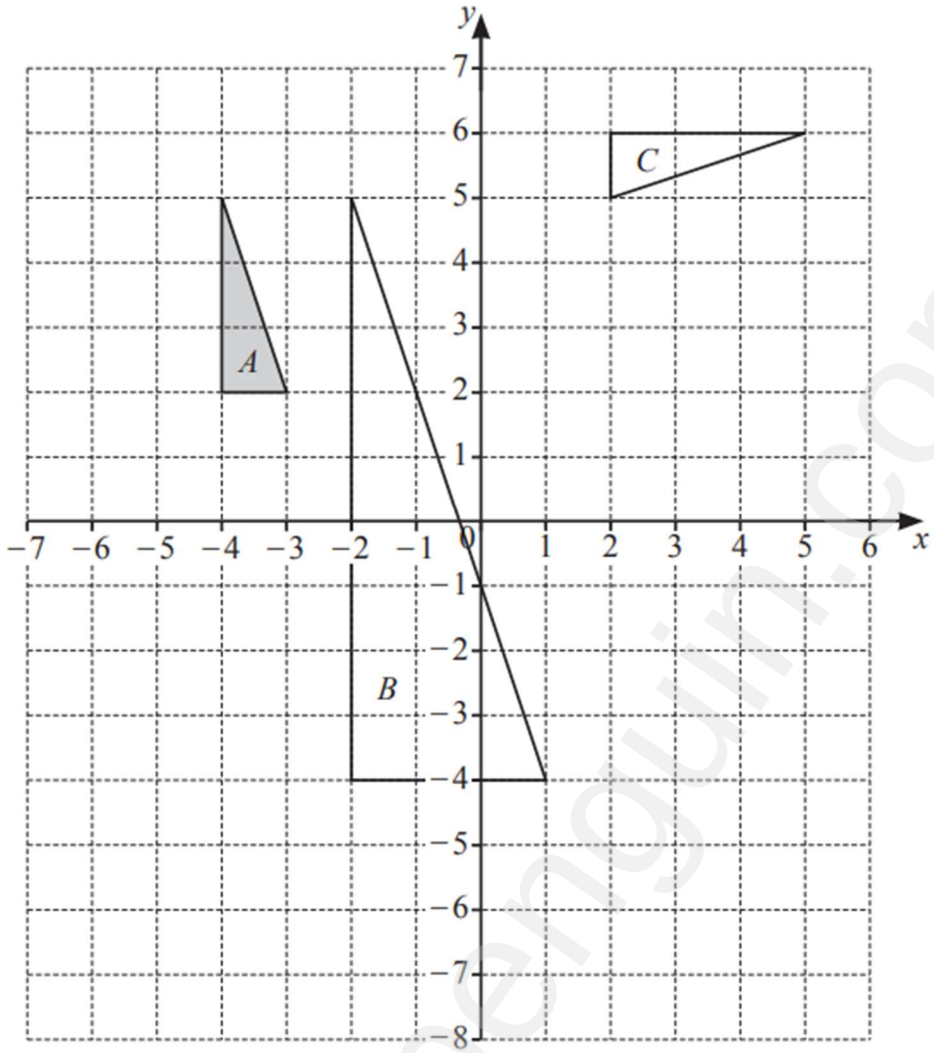
(ii) triangle A after a translation by the vector $\begin{pmatrix} -6 \\ 1 \end{pmatrix}$. [2]

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

.....

..... [3]

1



(a) Draw the image of shape A after a translation by the vector $\begin{pmatrix} 8 \\ -6 \end{pmatrix}$. [2]

(b) Draw the image of shape A after a reflection in the line $y = -1$. [2]

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

.....

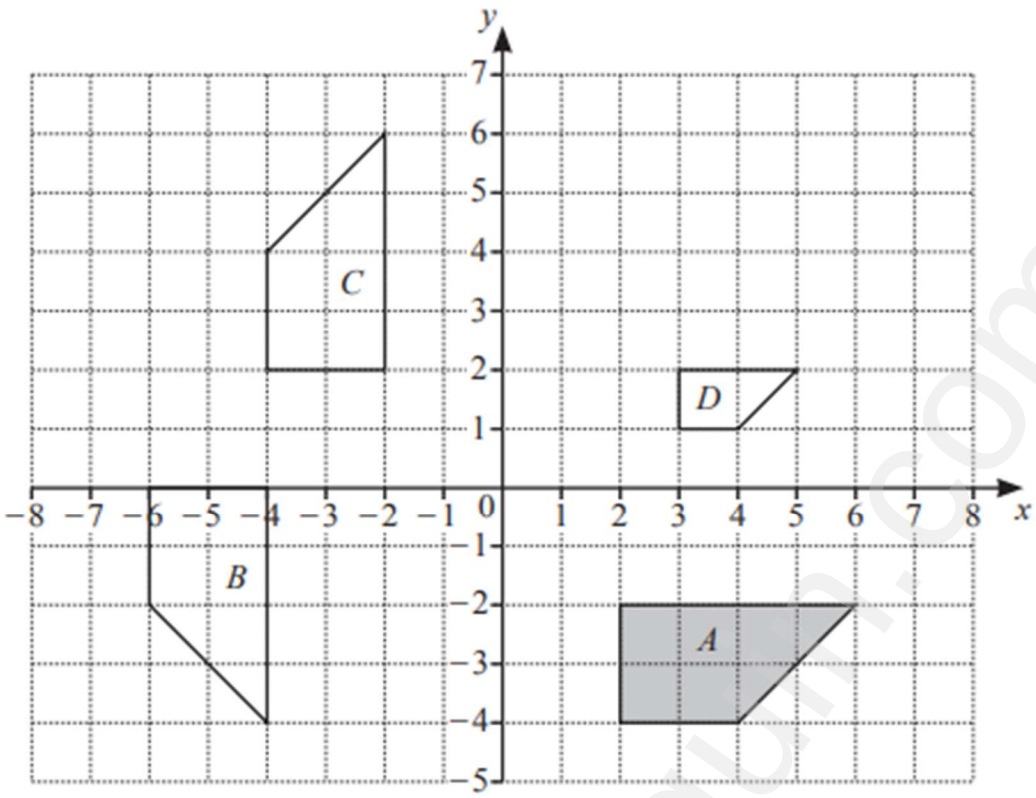
..... [3]

(d) Describe fully the **single** transformation that maps shape A onto shape C.

.....

..... [3]

11



Describe fully the **single** transformation that maps

(a) shape A onto shape B,

.....

..... [3]

(b) shape A onto shape C,

.....

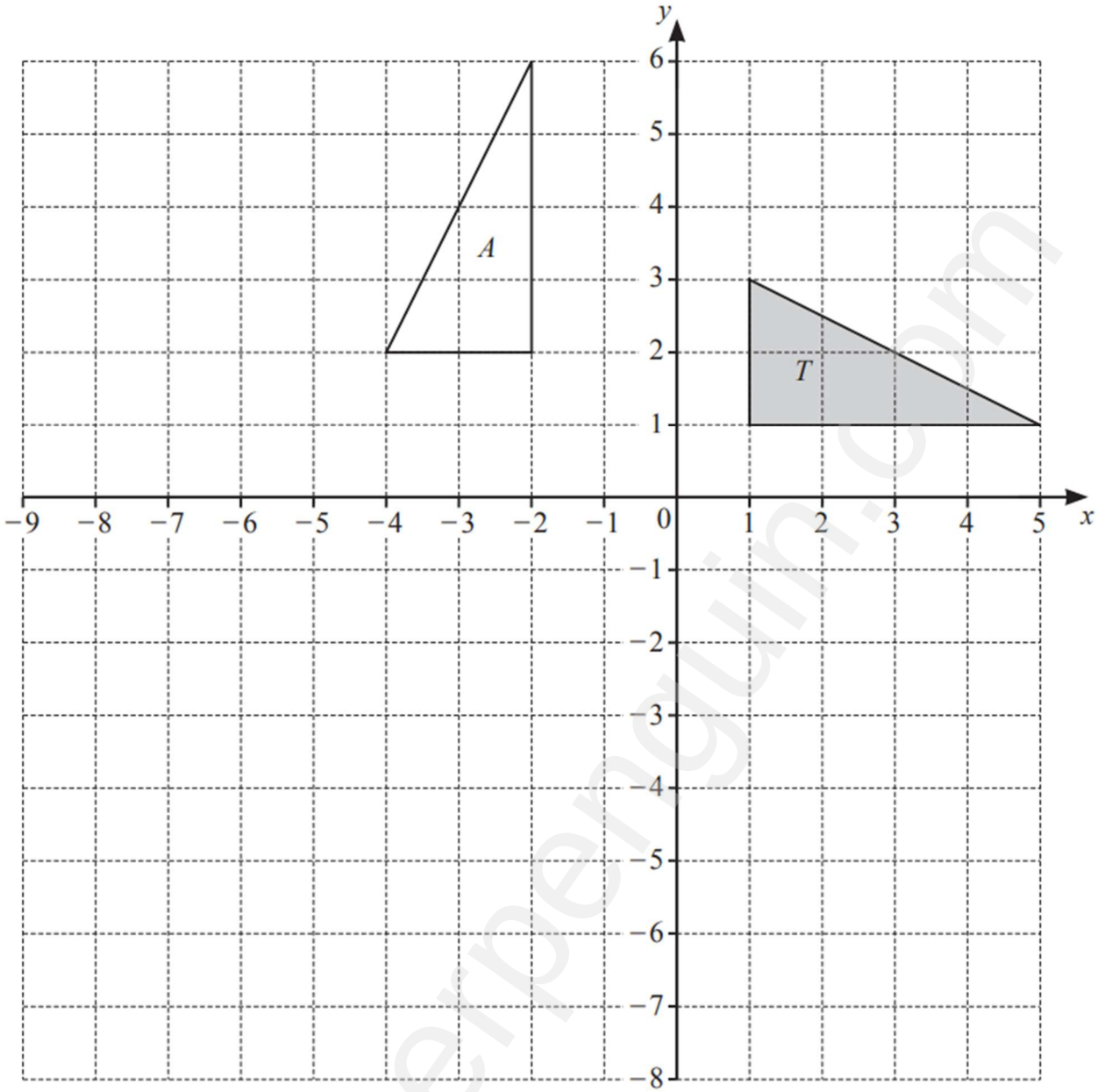
..... [2]

(c) shape A onto shape D.

.....

..... [3]

4



(a) Draw the reflection of triangle T in the line $y = -2$. [2]

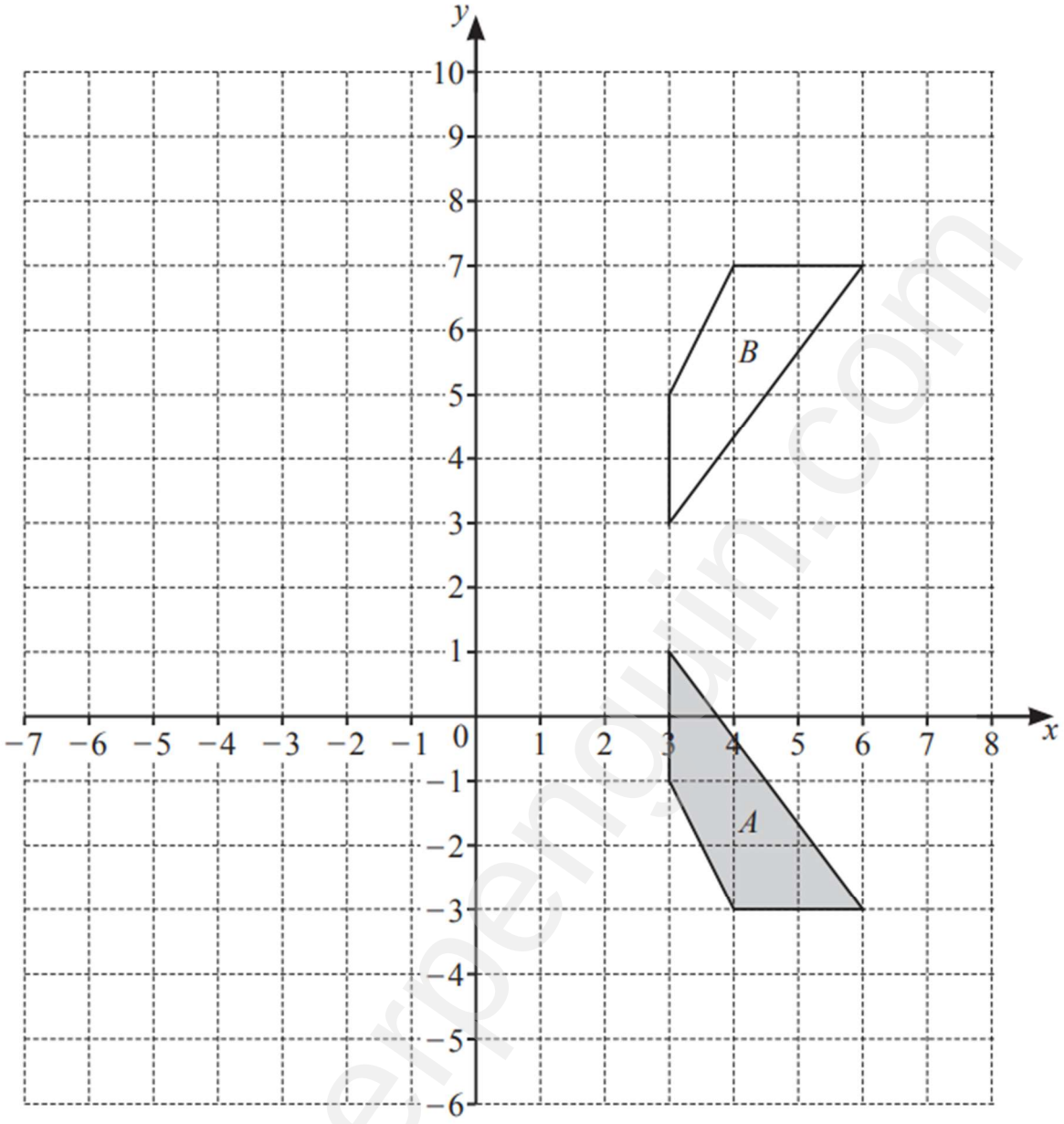
(b) Draw the enlargement of triangle T with scale factor $\frac{1}{2}$ and centre of enlargement $(-5, -3)$. [2]

(c) Describe fully the **single** transformation that maps triangle T onto triangle A.

.....

..... [3]

10



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

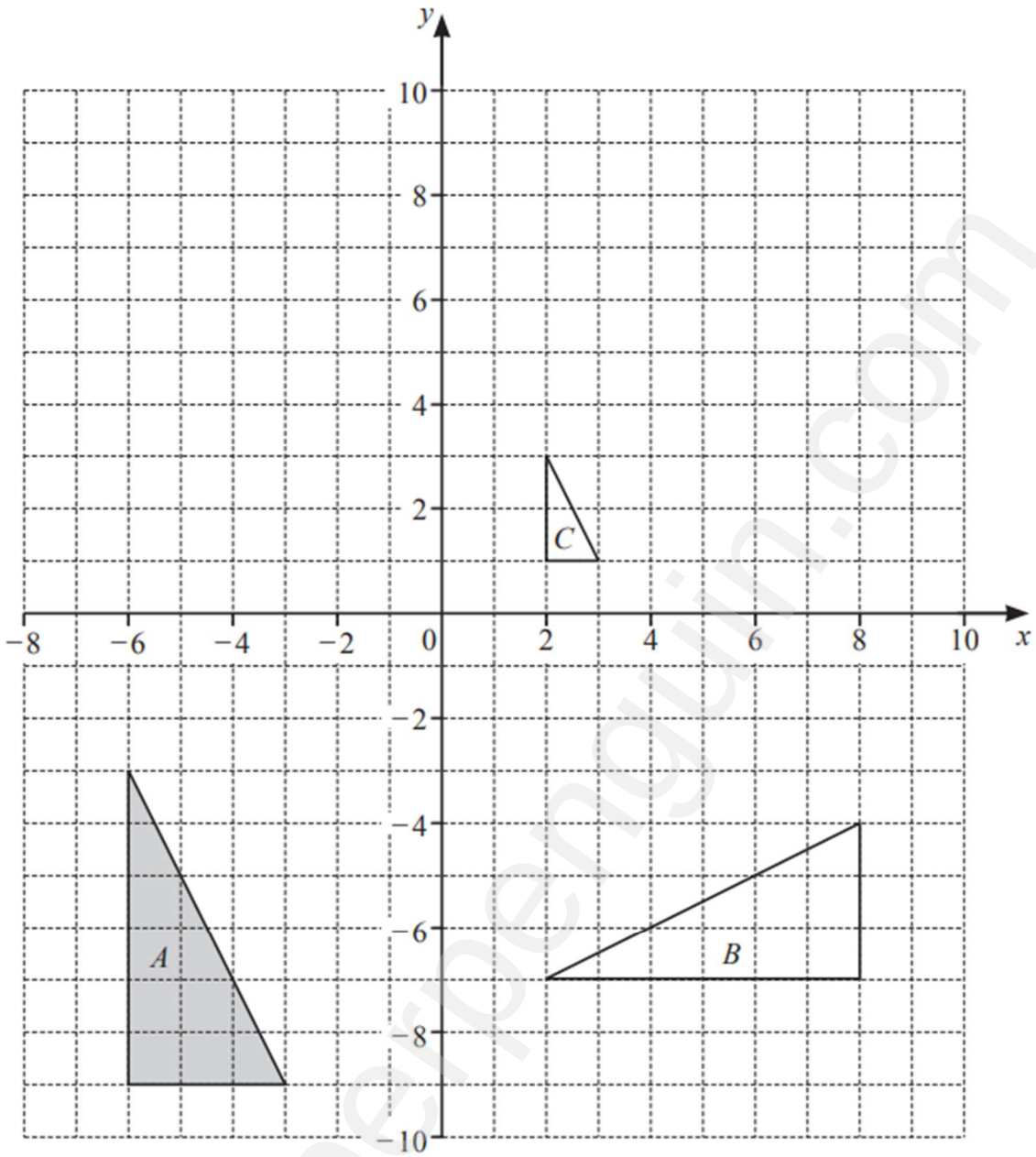
.....

..... [2]

(b) Rotate shape A 90° clockwise about the point $(-1, 2)$. [2]

(c) Enlarge shape A by scale factor -2, centre $(2, 0)$. [2]

10



(a) Describe fully the **single** transformation that maps

(i) triangle A onto triangle B,

.....

..... [3]

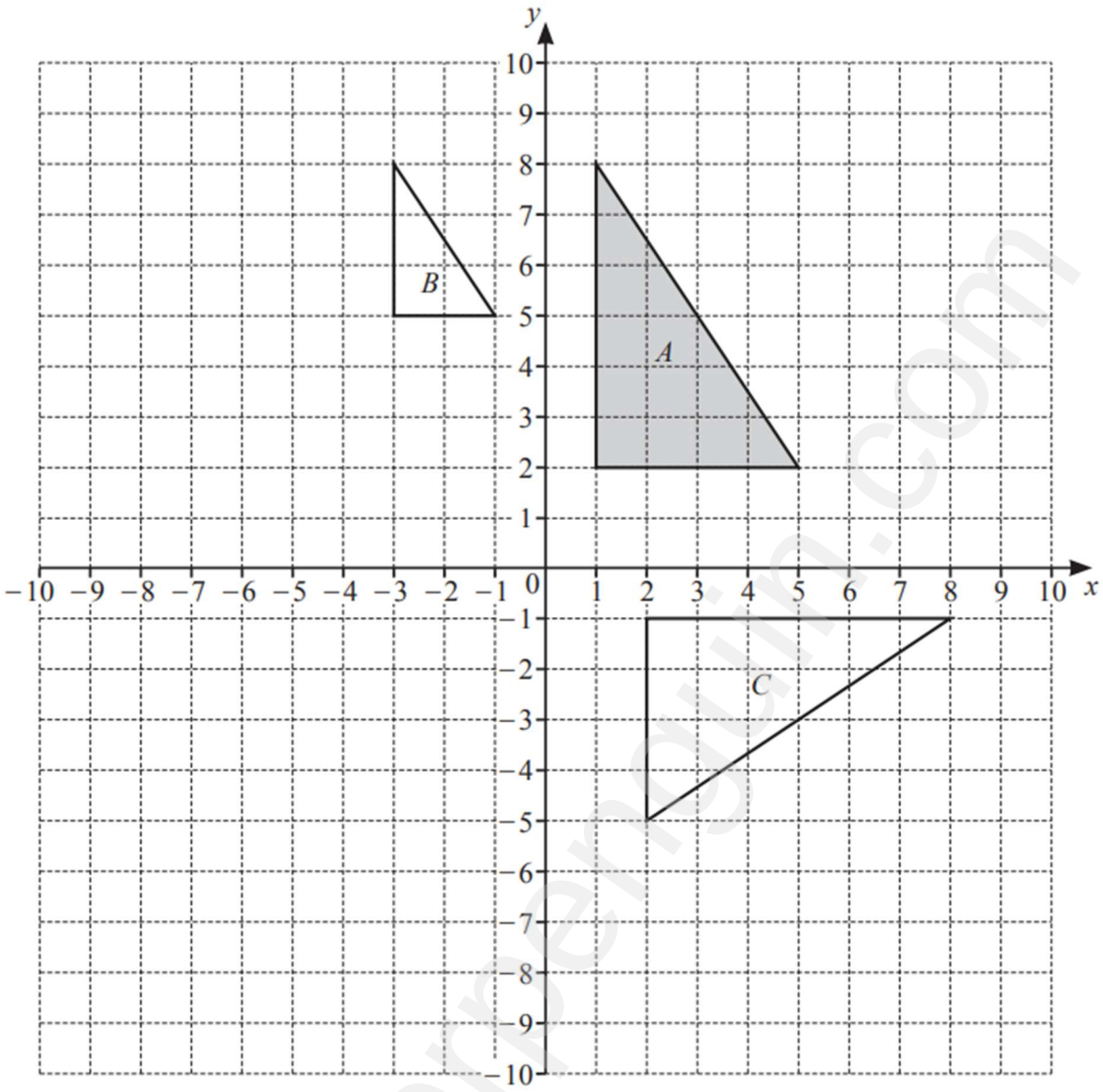
(ii) triangle A onto triangle C.

.....

..... [3]

(b) Draw the image of triangle A after a translation by the vector $\begin{pmatrix} 2 \\ 10 \end{pmatrix}$. [2]

2



(a) **(i)** Draw the image of triangle A after a reflection in the line $y = -x$. [2]

(ii) Draw the image of triangle A after a translation by the vector $\begin{pmatrix} -2 \\ -9 \end{pmatrix}$. [2]

(b) Describe fully the **single** transformation that maps

(i) triangle A onto triangle B,

.....

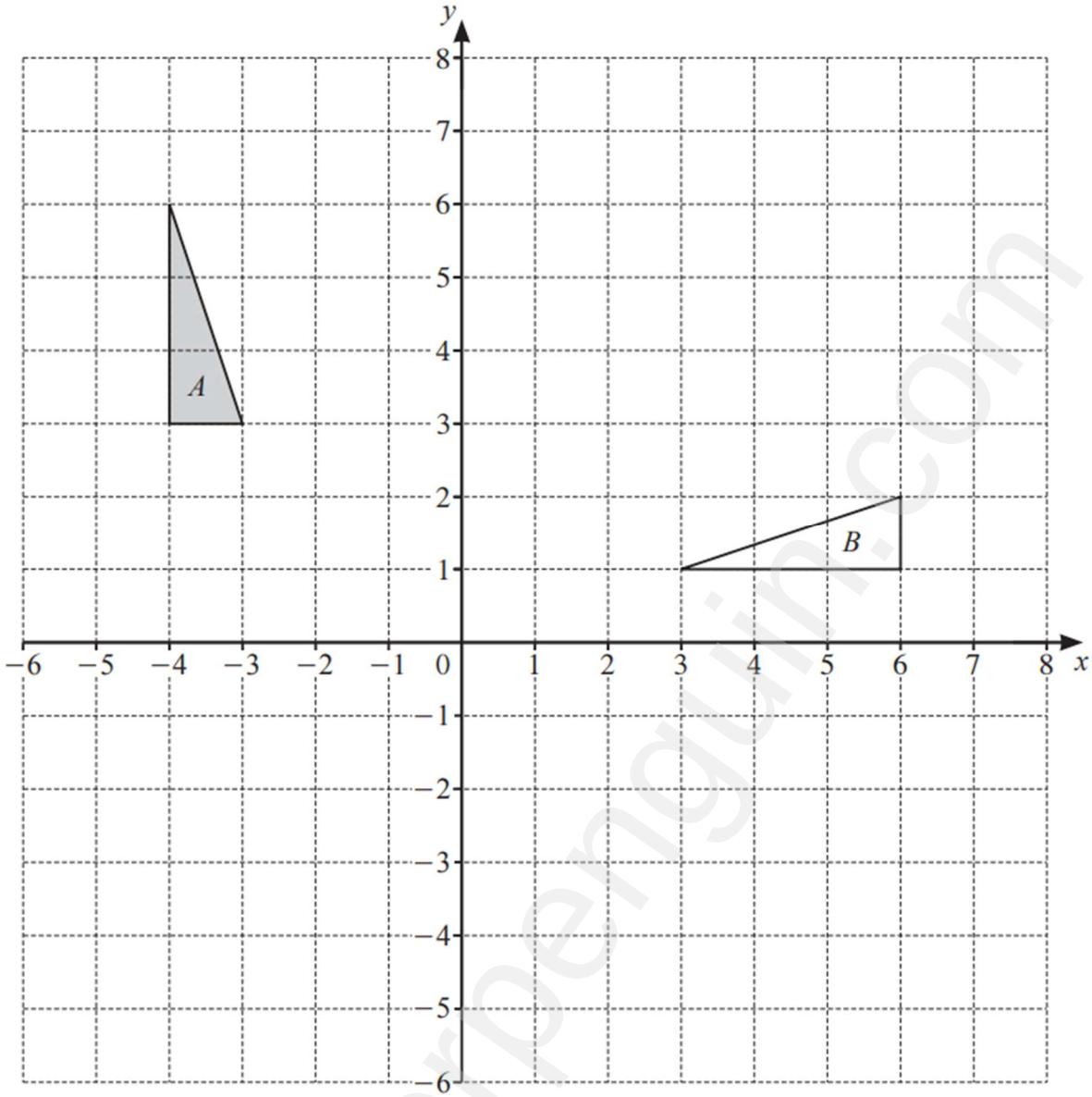
..... [3]

(ii) triangle A onto triangle C.

.....

..... [3]

3



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

.....

..... [3]

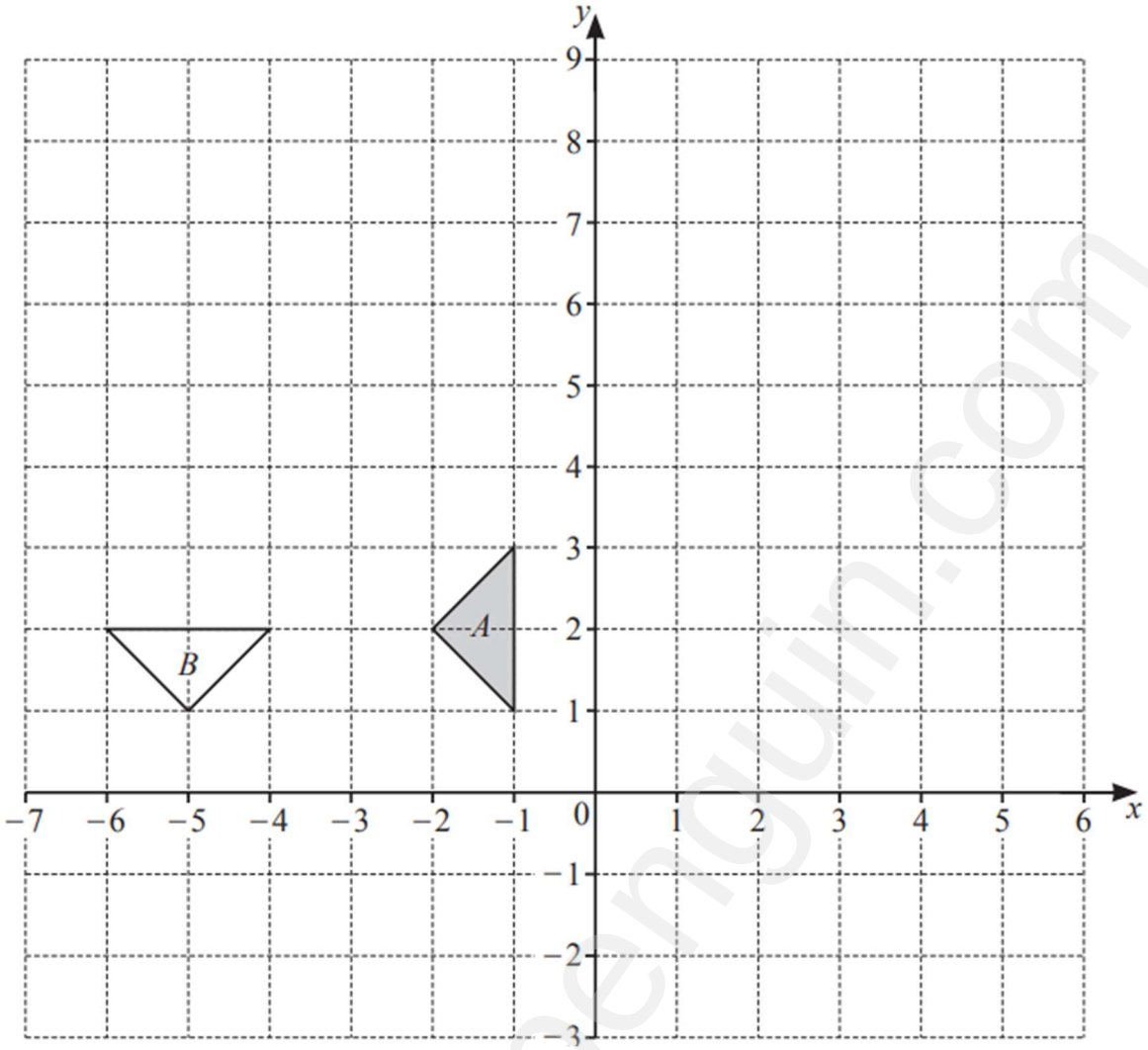
(b) Draw the image of triangle A after

(i) a reflection in the line $y = 1$ [2]

(ii) a translation by the vector $\begin{pmatrix} 5 \\ -7 \end{pmatrix}$ [2]

(iii) an enlargement, scale factor 2, centre $(-4, 5)$. [2]

4



(a) On the grid, draw the image of triangle A after

(i) a translation by the vector $\begin{pmatrix} -4 \\ 5 \end{pmatrix}$, [2]

(ii) a reflection in the line $x = 1$, [2]

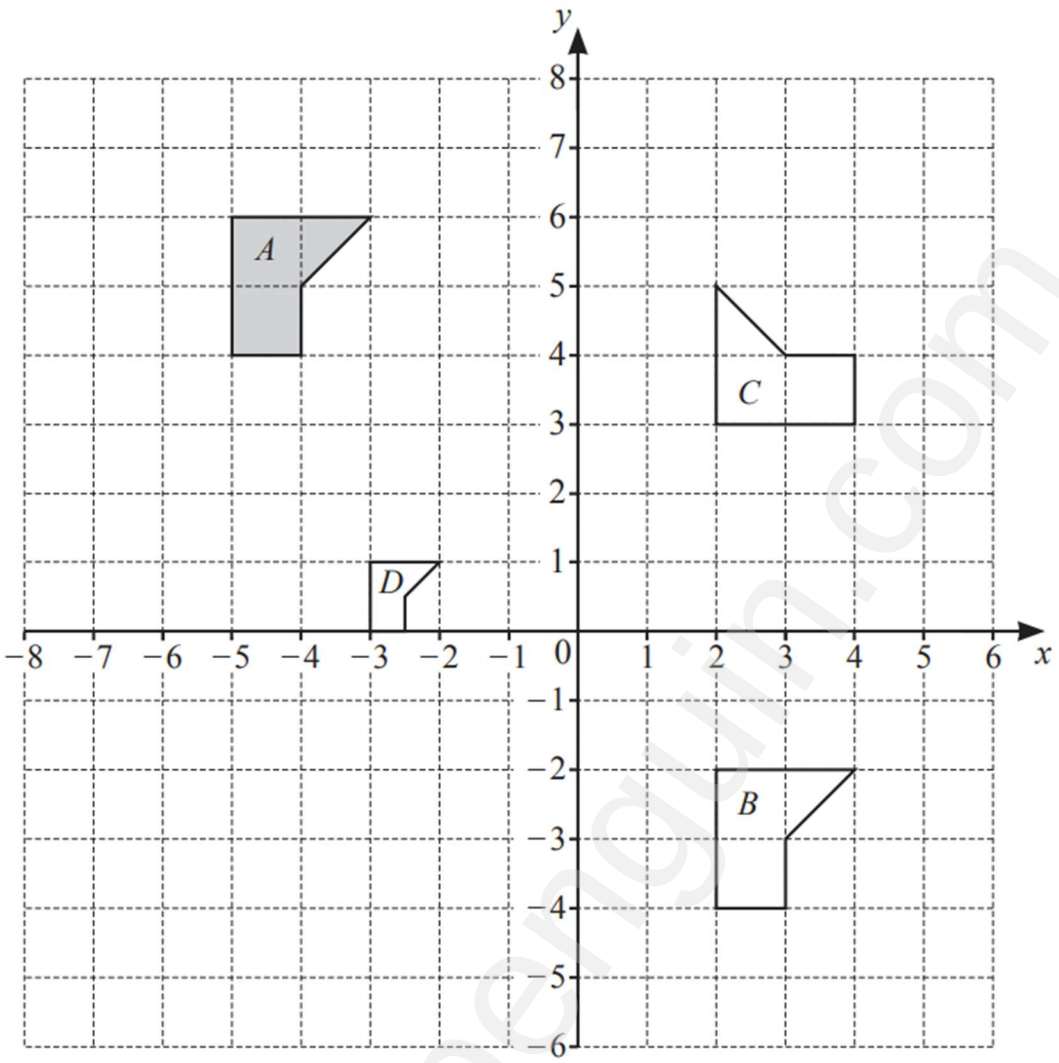
(iii) an enlargement, scale factor 2 and centre $(-5, -2)$. [2]

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

.....

..... [3]

4



(a) Describe fully the **single** transformation that maps

(i) shape A onto shape B,

.....

..... [2]

(ii) shape A onto shape C,

.....

..... [3]

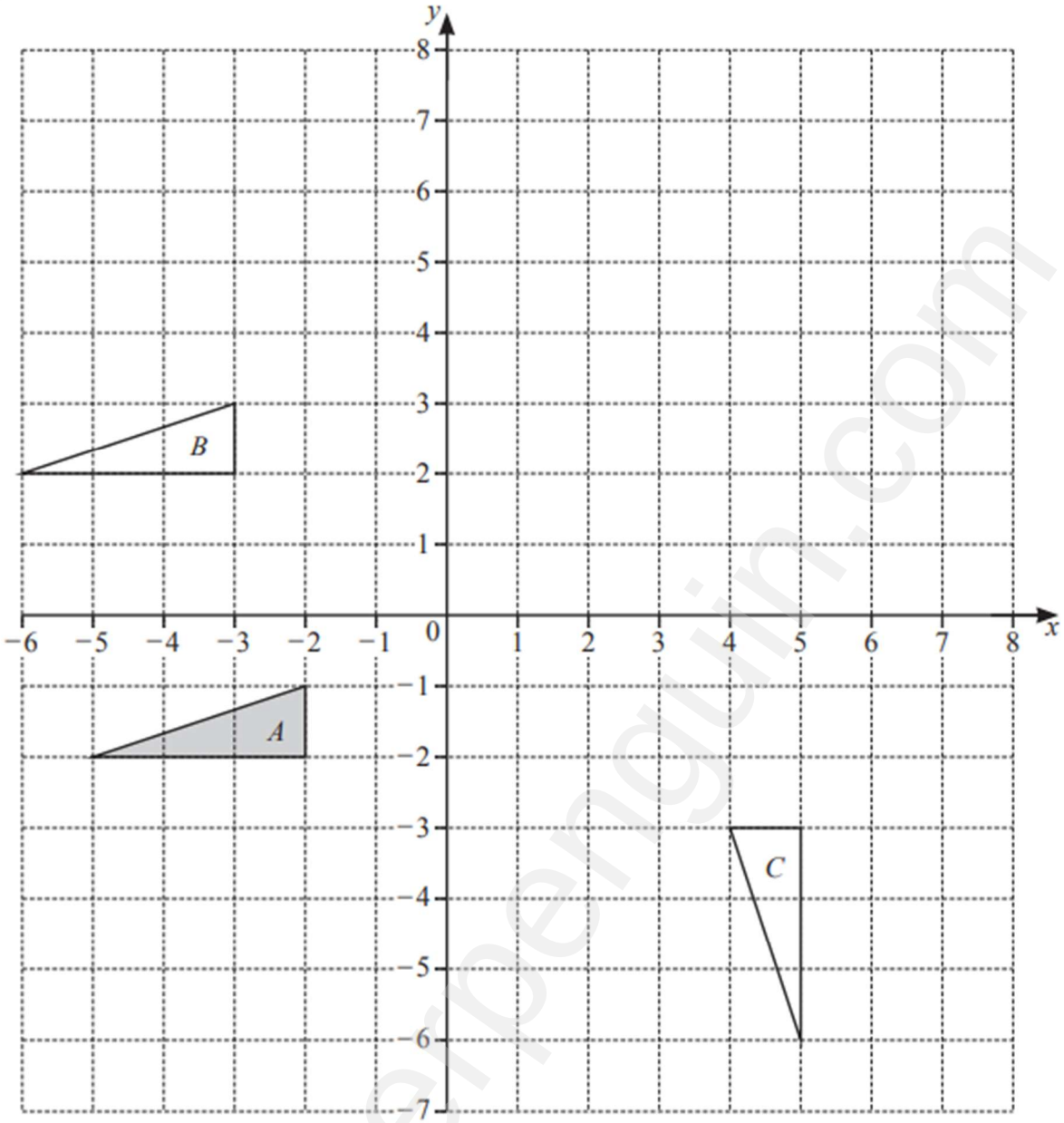
(iii) shape A onto shape D.

.....

..... [3]

(b) On the grid, draw the image of shape A after a reflection in the line $y = x + 8$. [2]

(b)



(i) Describe fully the **single** transformation that maps

(a) triangle A onto triangle B,

.....

..... [2]

(b) triangle A onto triangle C.

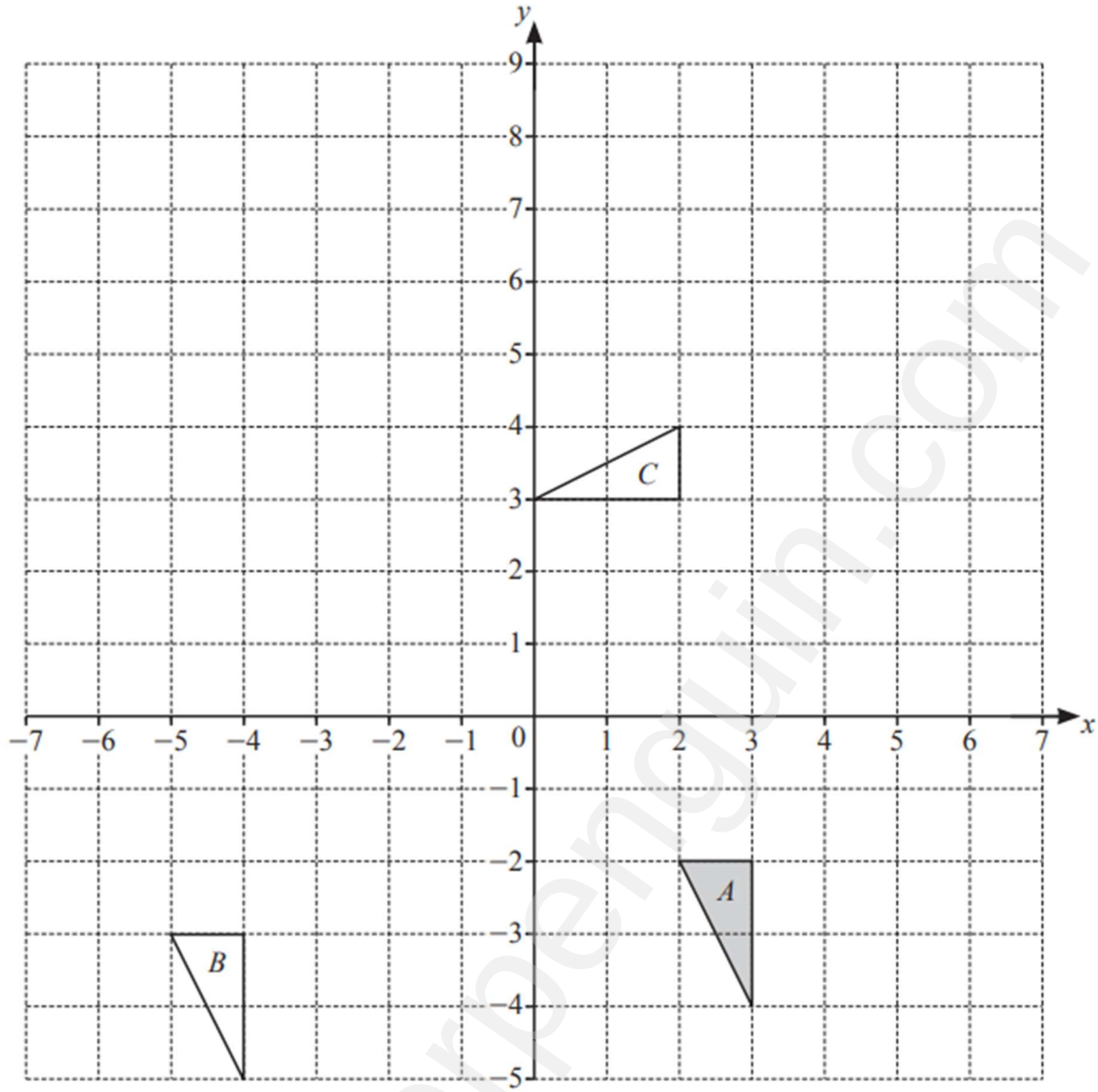
.....

..... [3]

(ii) **(a)** Draw the image of triangle A after reflection in $y = 2$. [2]

(b) Draw the image of triangle A after enlargement by scale factor -2, centre $(-1, 1)$. [2]

1



(a) Describe fully the **single** transformation that maps

(i) shape A onto shape B

.....

..... [2]

(ii) shape A onto shape C.

.....

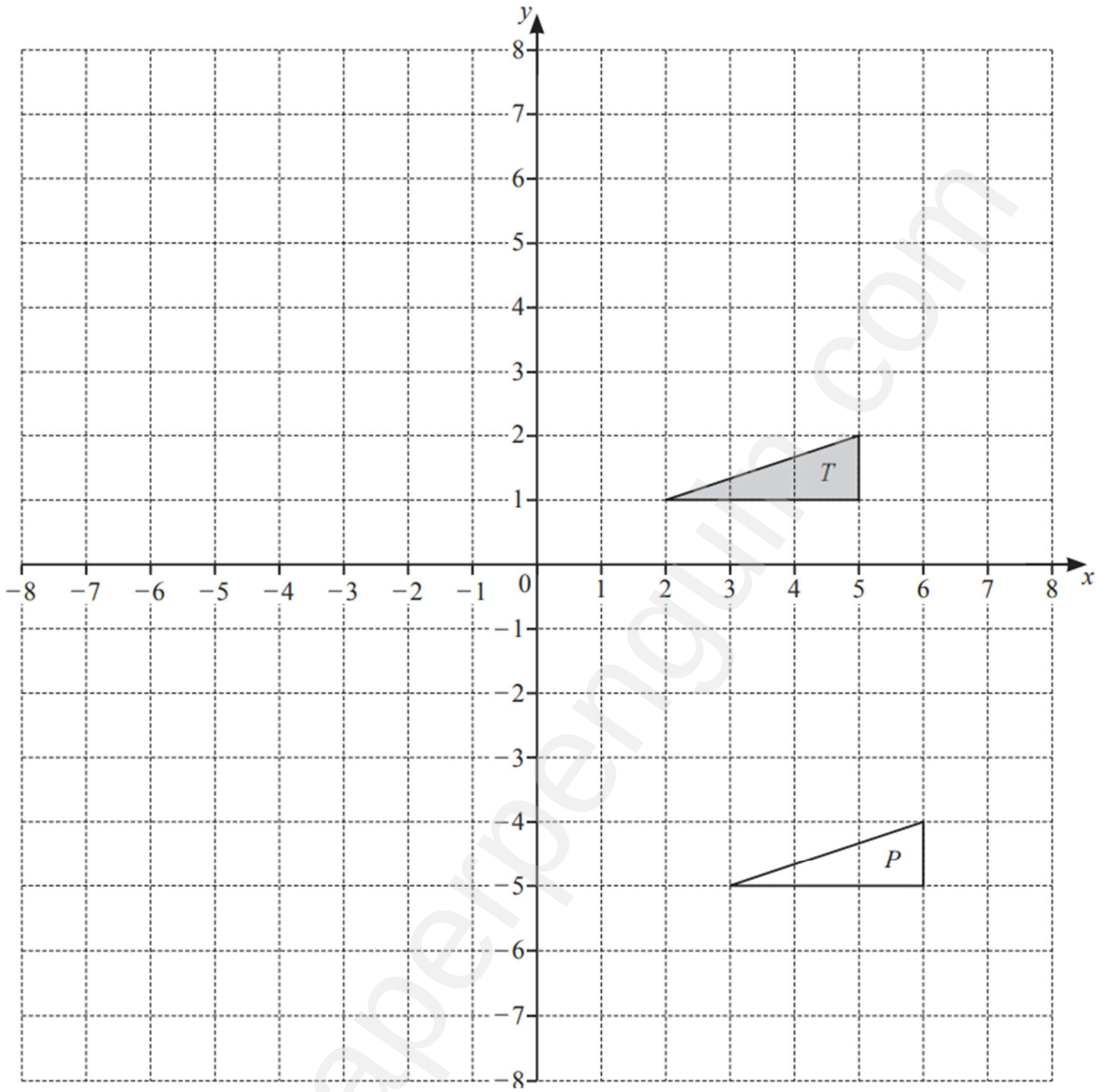
..... [3]

(b) On the grid, draw the image of

(i) shape A after a reflection in the line $y = 2$ [2]

(ii) shape A after an enlargement, scale factor -2, centre $(0, 0)$. [2]

2



(a) Describe fully the **single** transformation that maps triangle T onto triangle P.

.....

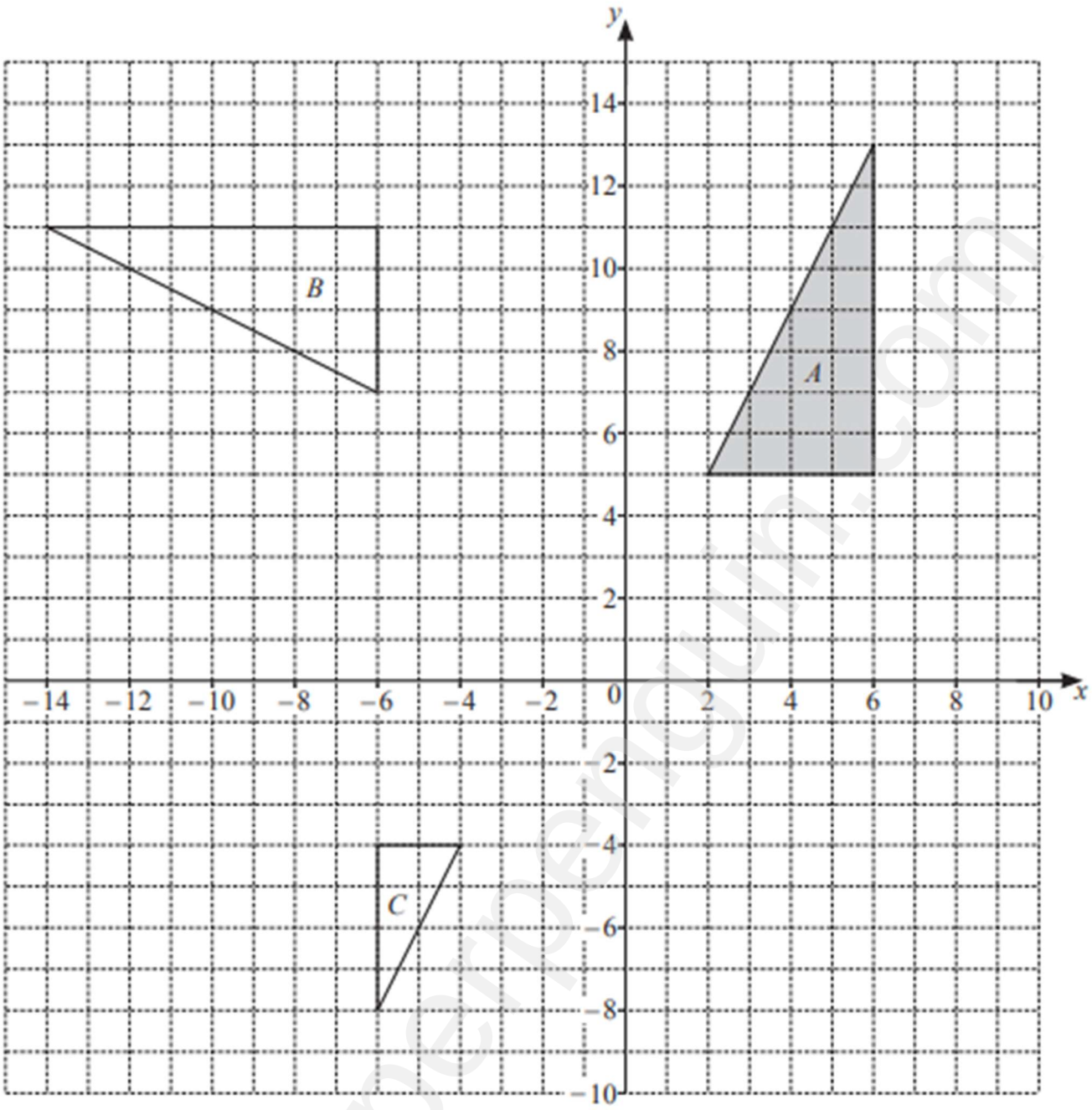
..... [2]

(b) **(i)** Reflect triangle T in the line $x = 1$. [2]

(ii) Rotate triangle T through 90° anticlockwise about (6, 0). [2]

(iii) Enlarge triangle T by a scale factor of −2, centre (1, 0). [2]

2



(a) Describe fully the **single** transformation that maps

(i) triangle A onto triangle B,

.....

..... [3]

(ii) triangle A onto triangle C.

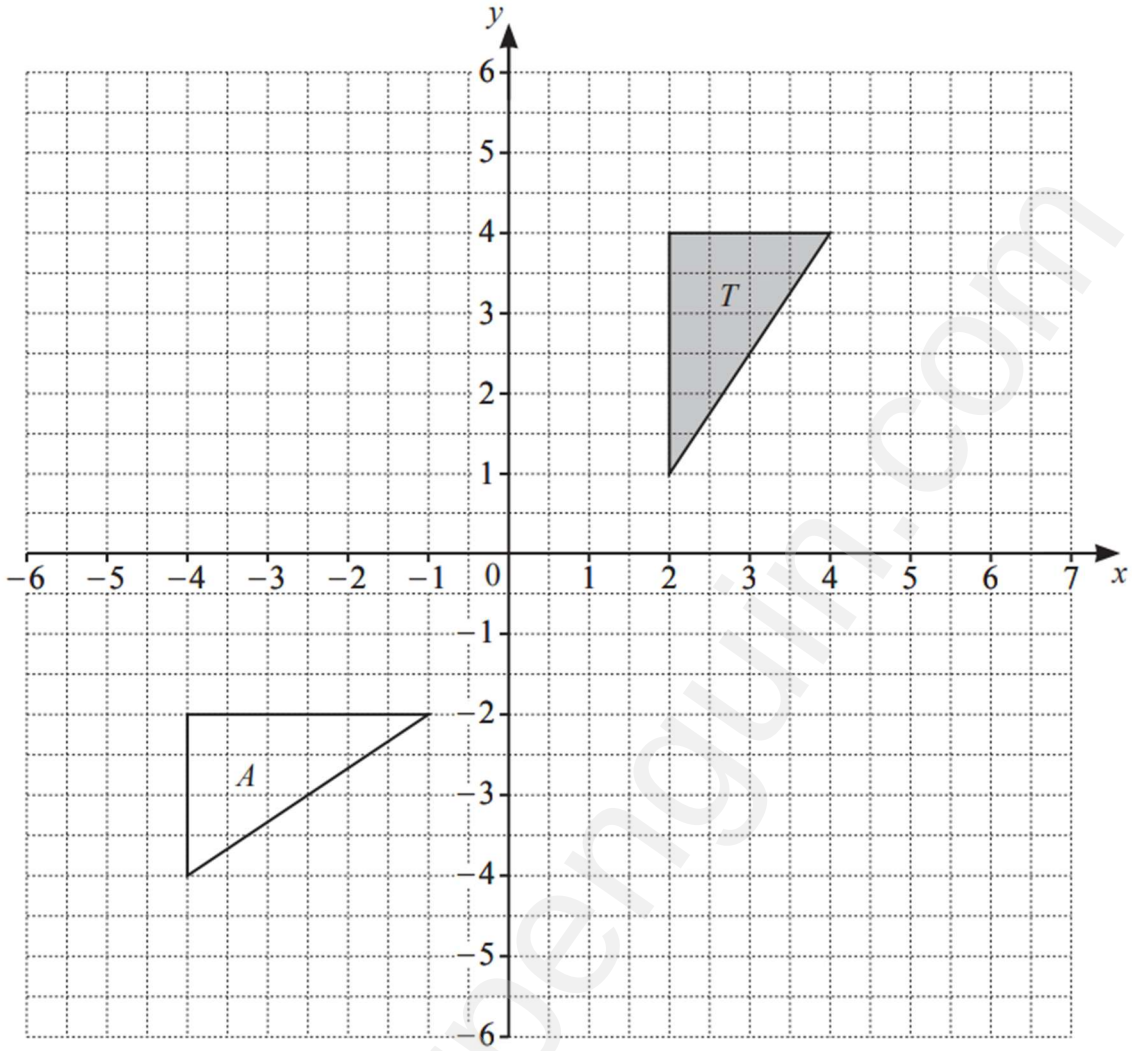
.....

..... [3]

(b) Draw the image of triangle A after a translation by the vector $\begin{pmatrix} -5 \\ -10 \end{pmatrix}$. [2]

(c) Draw the image of triangle A after a reflection in the line $y = 4$. [2]

7



(a) On the grid, draw the image of

(i) triangle T after a translation by the vector $\begin{pmatrix} 2 \\ -1 \end{pmatrix}$, [2]

(ii) triangle T after a rotation, 90° clockwise, about the origin, [2]

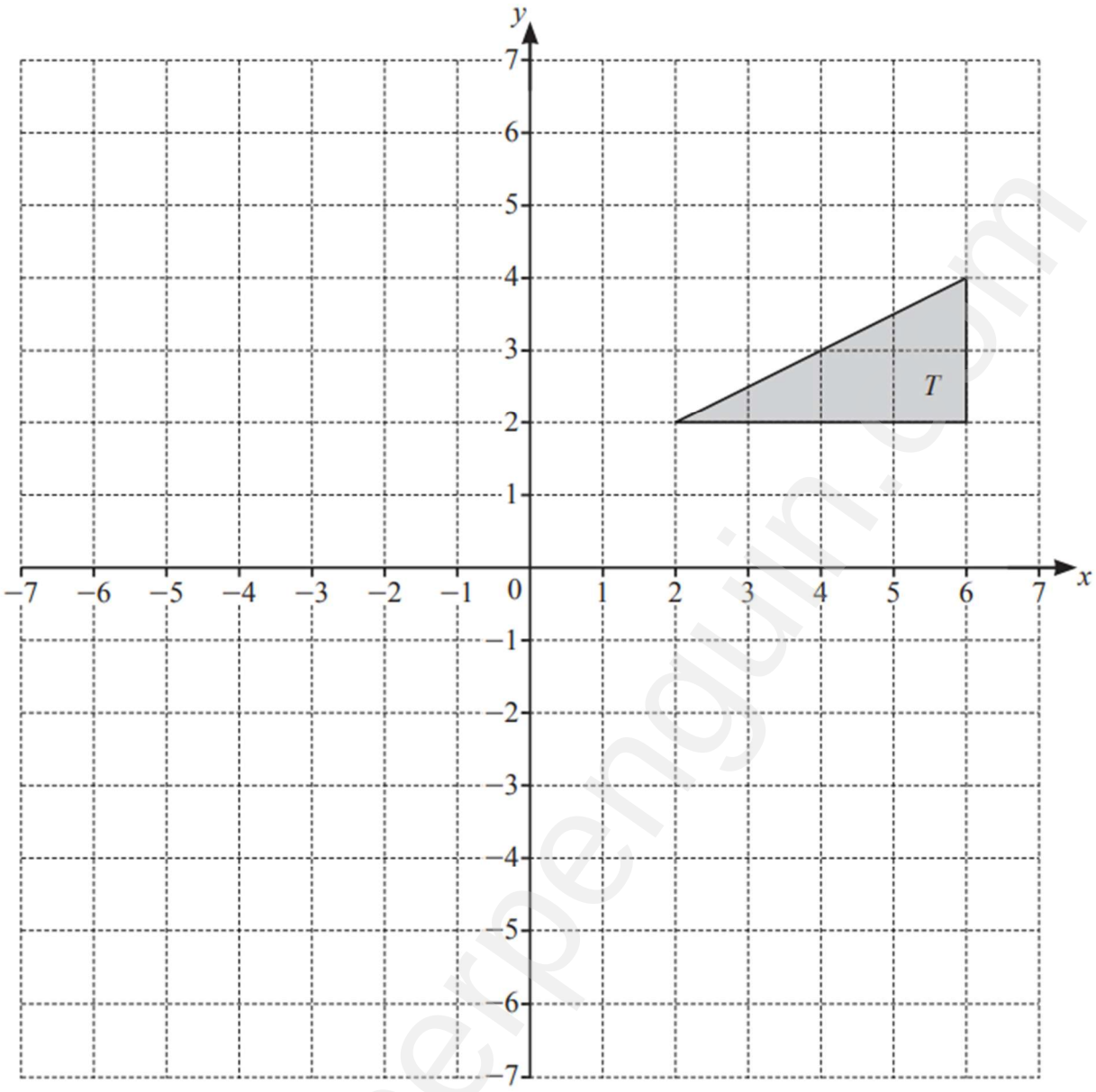
(iii) triangle T after an enlargement, scale factor $-\frac{1}{2}$, centre $(-2, 3)$. [2]

(b) Describe fully the **single** transformation that maps triangle T onto triangle A.

.....

..... [2]

1



(a) **(i)** Translate triangle T by the vector $\begin{pmatrix} -7 \\ 1 \end{pmatrix}$. Label the image K. [2]

(ii) Describe fully the **single** transformation that maps triangle K onto triangle T.

.....

..... [1]

(b) Reflect triangle T in the line $y = 4$. [2]

(c) Rotate triangle T through 90° clockwise about (0, 0). [2]

(d) **(i)** Enlarge triangle T by scale factor $-\frac{1}{2}$, centre (0, 0). Label the image P. [2]

(ii) Describe fully the **single** transformation that maps triangle P onto triangle T.

.....

..... [2]