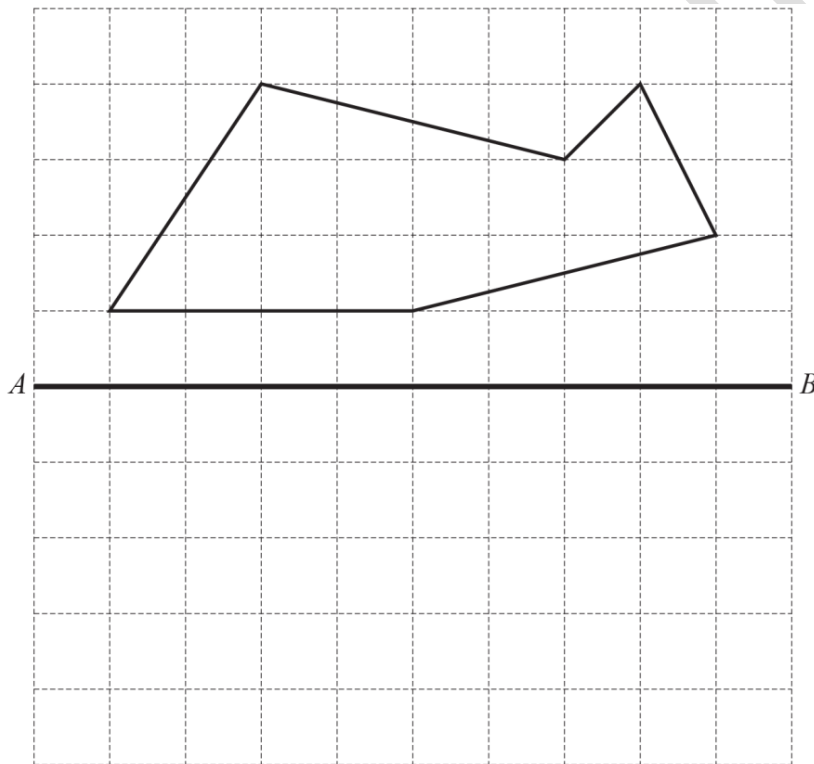


Name:

Section:

TRANSFORMATIONS WORKSHEET

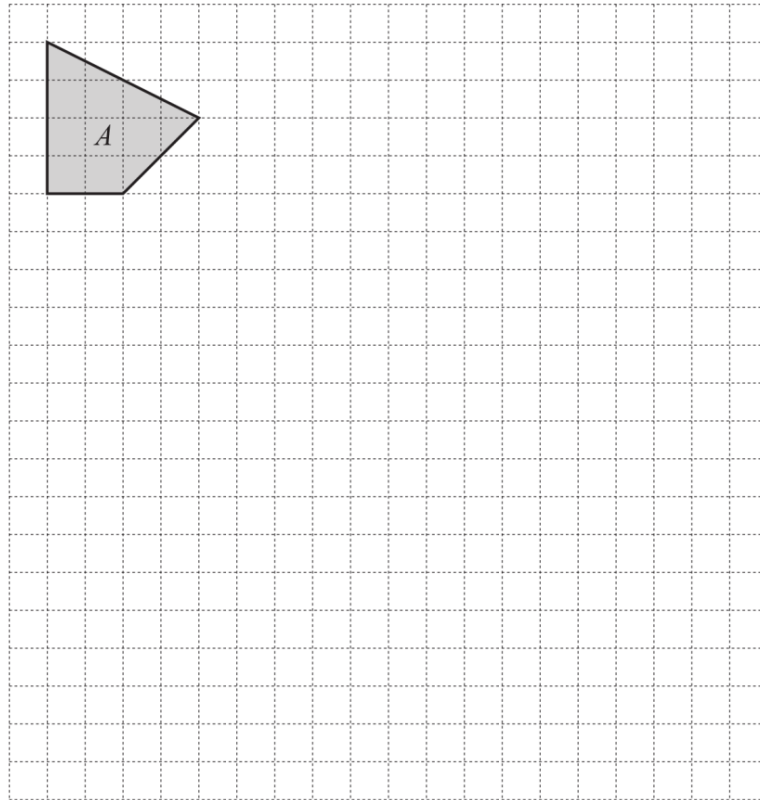
- 1 Reflect this shape in the line AB .



[2]

[Total: 2]

2 Shape A is shown on the grid.

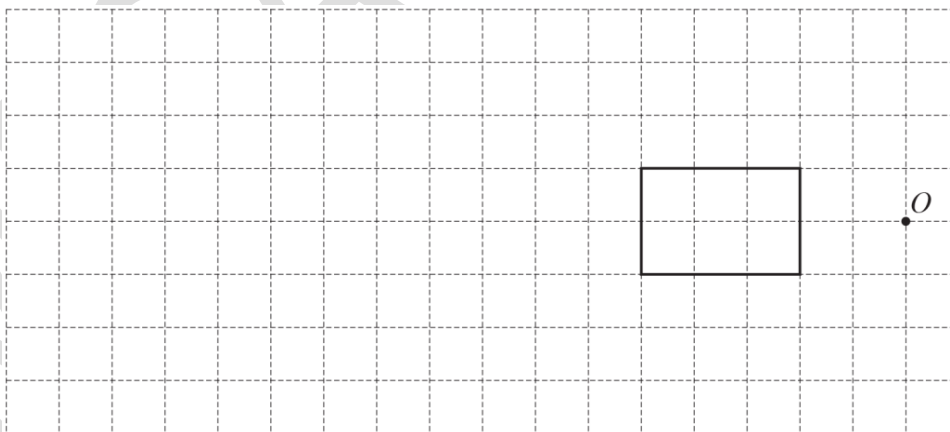


On the grid, enlarge shape A by scale factor 3.

[2]

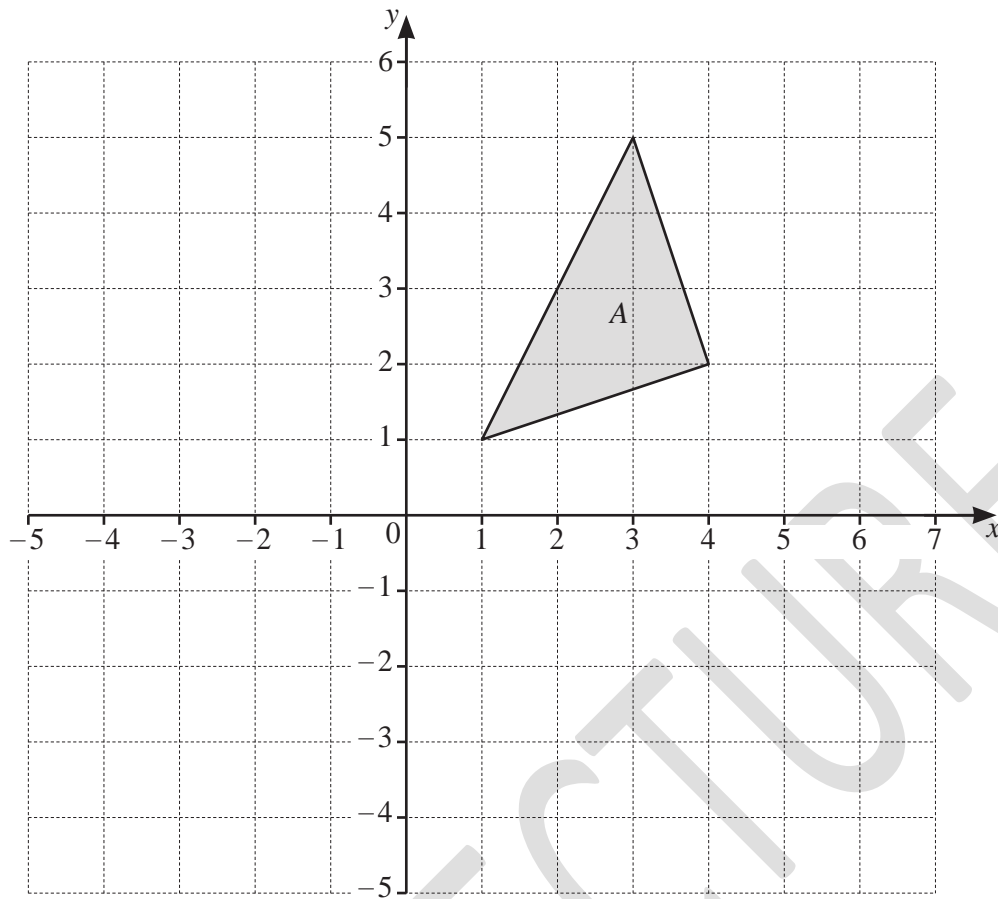
[Total: 2]

3 Enlarge the rectangle using a scale factor of 3 and centre of enlargement O .



[2]

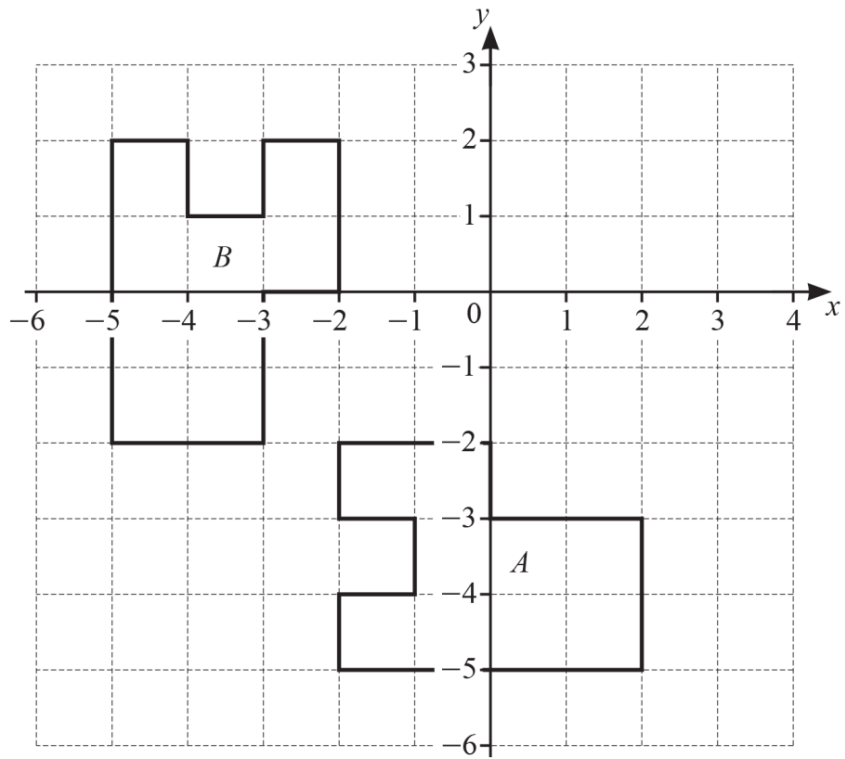
[Total: 2]



On the grid, draw the image of

- (a) triangle A after a reflection in the y -axis, [1]
- (b) triangle A after a translation by the vector $\begin{pmatrix} -3 \\ -4 \end{pmatrix}$. [2]

[Total: 3]



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

.....

.....

[3]

[Total: 3]

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

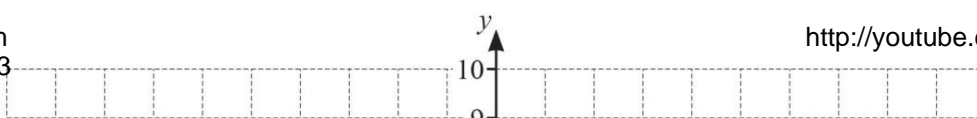
(b) Draw the image of triangle T after a rotation through 90° clockwise about $(0, 0)$. [2]

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

.....

..... [2]

[Total: 6]



(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 . [2]

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

(i) triangle A onto triangle B ,

..... [3]
.....

(ii) triangle A onto triangle C .

..... [3]
.....

[Total: 10]



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

(i) triangle A onto triangle B ,

.....
.....

[3]

(ii) triangle A onto triangle C ,

.....
.....

[2]

(iii) triangle A onto triangle D .

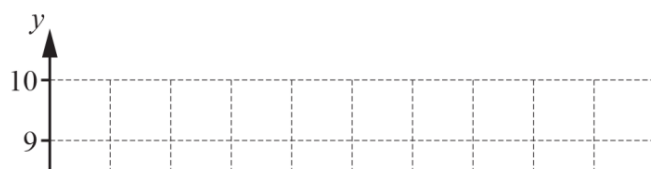
.....
.....

[3]

(b) On the grid, draw the image of triangle A after a reflection in the line $y = -1$.

[2]

[Total: 10]



Reflect shape T in the line $y = x$.

[2]

[Total: 2]

10

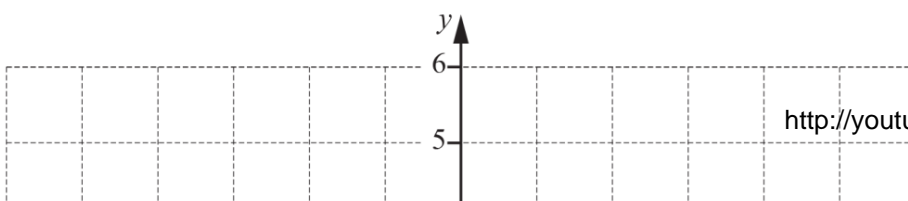
Draw the enlargement of the triangle by scale factor 3, centre X .

[2]

[Total: 2]

9

11



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

.....
.....

[2]

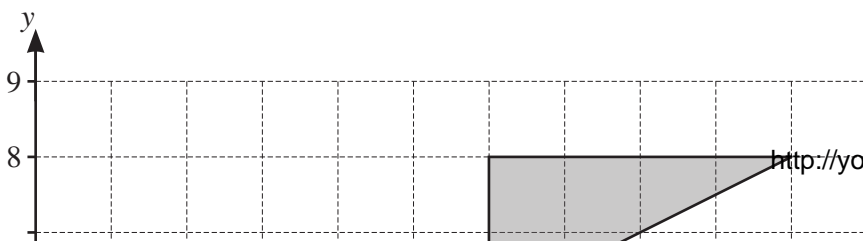
(b) On the grid, draw the image of triangle *A* after a reflection in the line .

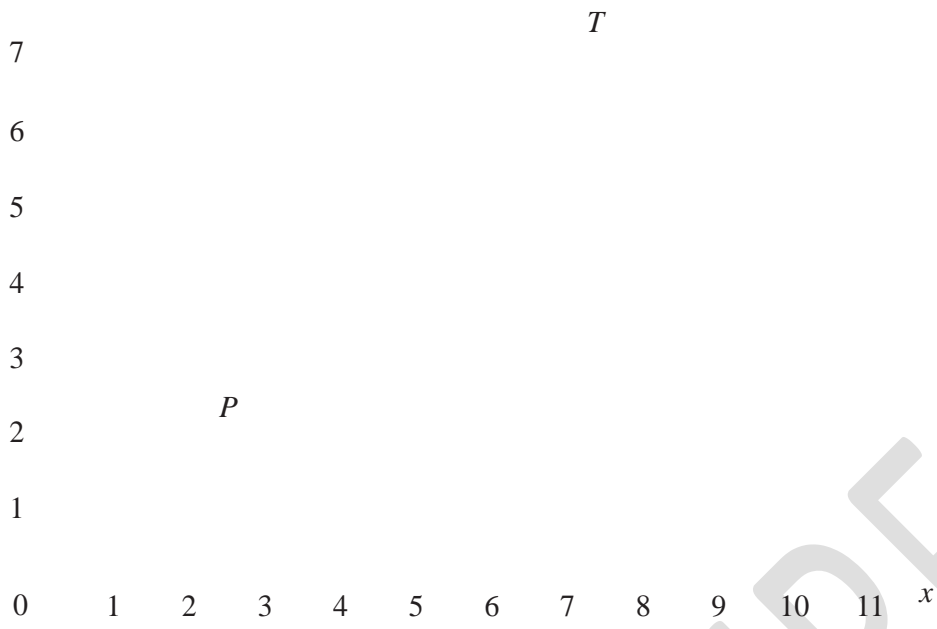
[2]

(c) On the grid, draw the image of triangle *A* after a rotation through 180° about $(0, 0)$.

[2]

[Total: 6]





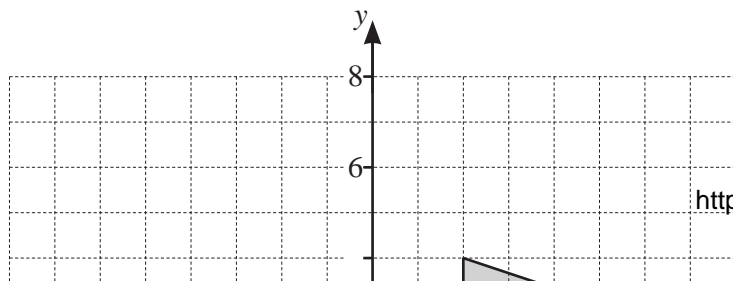
Describe fully the **single** transformation that maps triangle *T* onto triangle *P*.

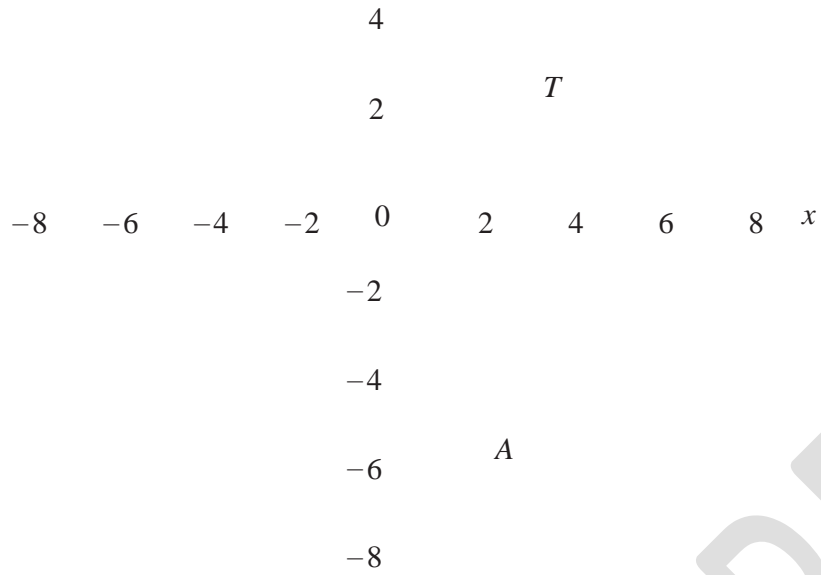
.....

[3]

[Total: 3]

MEGA LECTURE





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

.....
 [2]

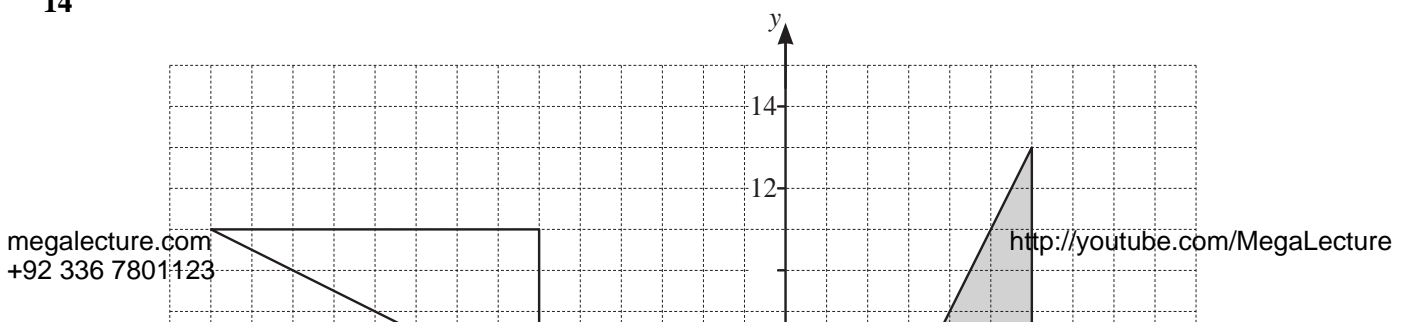
(b) Draw the image of triangle T after an enlargement, scale factor _____, centre $(0, 0)$.

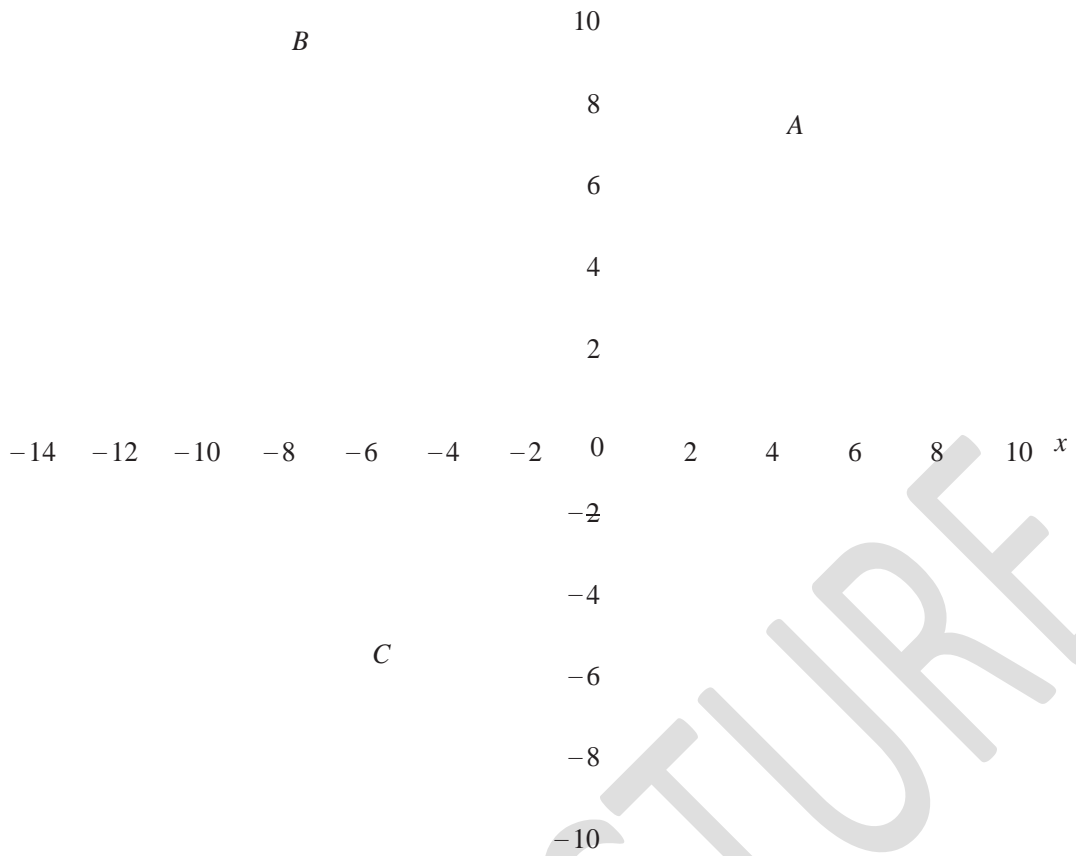
[2]

[Total: 4]

12

14





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

(i) triangle *A* onto triangle *B*,

.....
 [3]

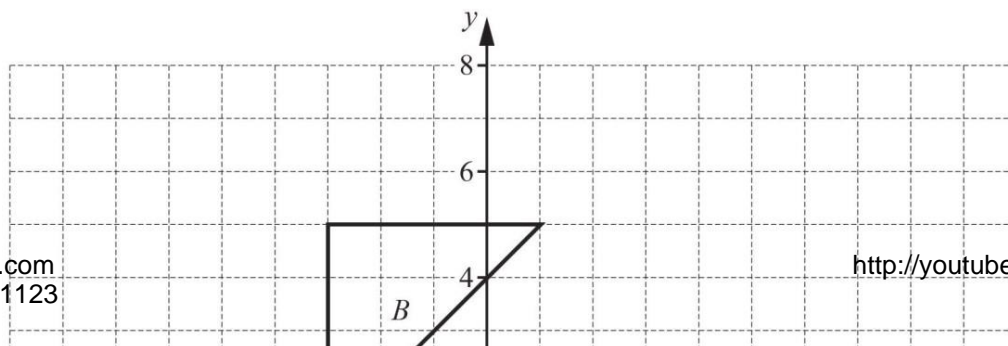
(ii) triangle *A* onto triangle *C*.

.....
 [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]

[Total: 10]



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

(i) flag *A* onto flag *B*,

.....
..... [2]

(ii) flag *A* onto flag *C*,

.....
..... [3]

(iii) flag *A* onto flag *D*.

.....
..... [3]

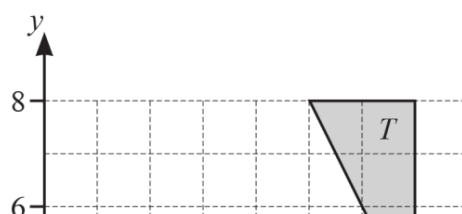
14

(b) Draw the reflection of flag *A* in the line $y = -1$.

[2]

[Total: 10]

16

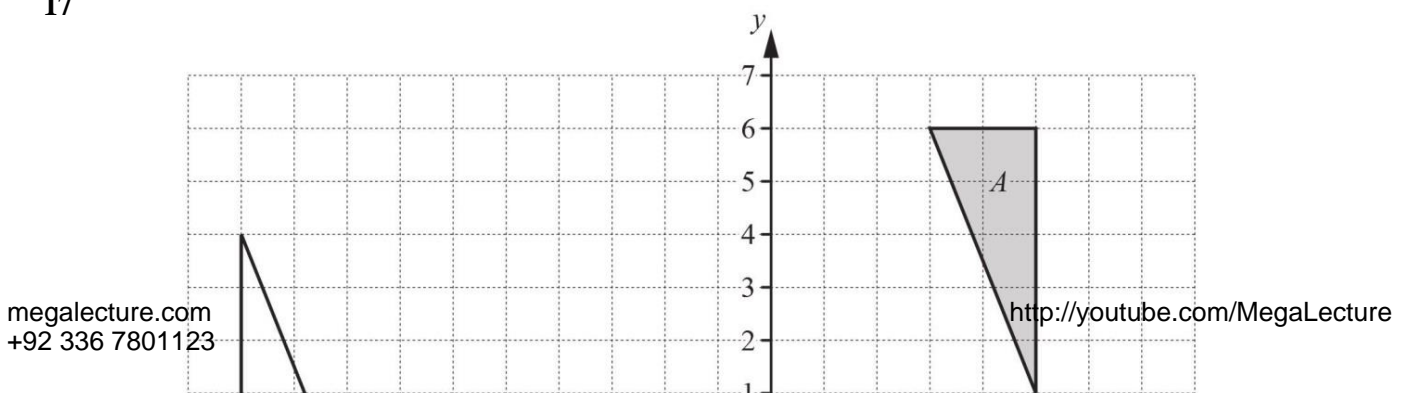


Describe fully the **single** transformation that maps triangle T onto triangle U .

.....
.....

[3]

[Total: 3]



Describe fully the **single** transformation that maps

(a) triangle A onto triangle B ,

.....
.....

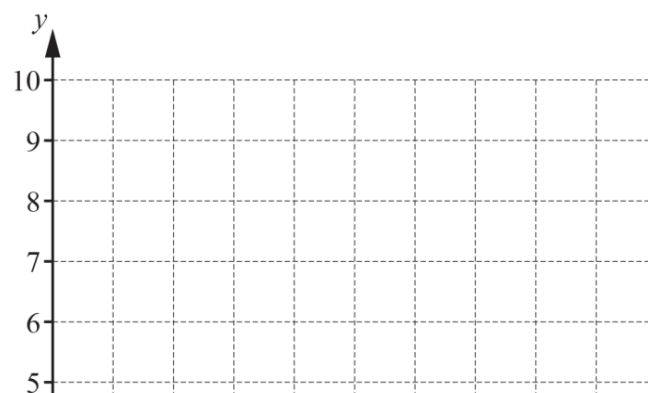
[3]

(b) triangle A onto triangle C .

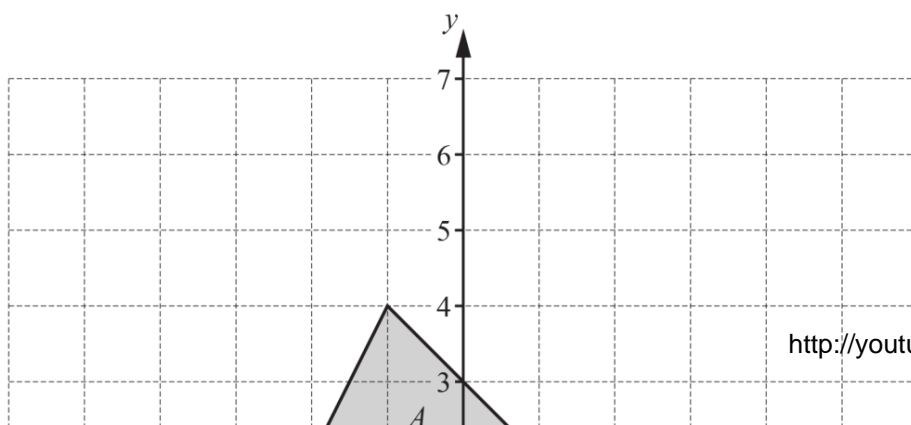
.....
.....

[3]

[Total: 6]



- (a) Translate shape T by the vector $\begin{pmatrix} 2 \\ 1 \end{pmatrix}$.
Label the image A . [2]
- (b) Rotate shape T about the point $(5, 3)$ through 180° .
Label the image B . [2]
- (c) Describe fully the **single** transformation that maps shape A onto shape B .
..... [3]
..... [3]
- [Total: 7]



(a) On the grid, draw the image of

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

(ii) triangle A after a reflection in the line $y = x$. [2]

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

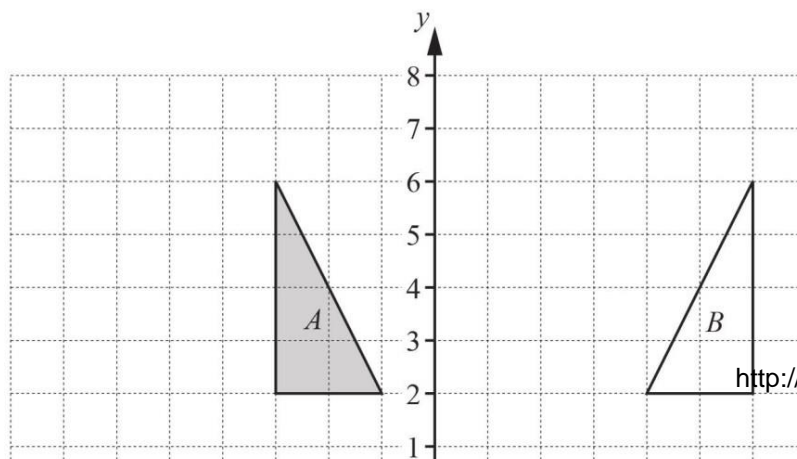
.....
..... [3]

[Total: 7]

20

18

$-\frac{1}{2}$
 -3
 1



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

(i) triangle A onto triangle B ,

.....
..... [2]

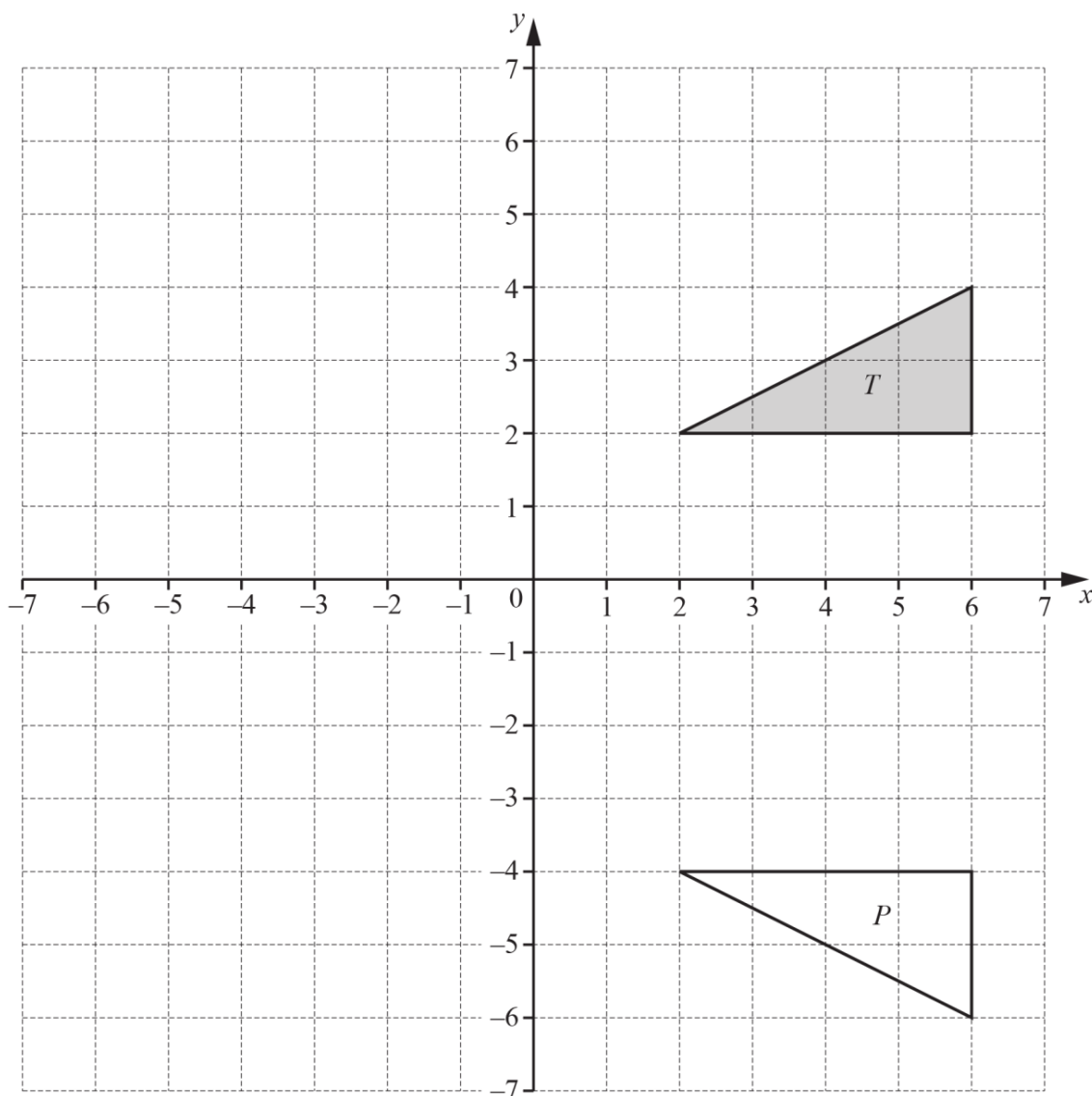
(ii) triangle A onto triangle C .

.....
..... [3]

(b) On the grid, draw the image of

(i) triangle A after an enlargement, scale factor $\frac{1}{2}$, centre $(3, 0)$, [2]

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



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

.....

[2]

(b) Translate triangle *T* by the vector $\begin{pmatrix} -2 \\ -5 \end{pmatrix}$.

[2]

(c) Rotate triangle *T* through 90° anticlockwise about (0, 0).

[2]

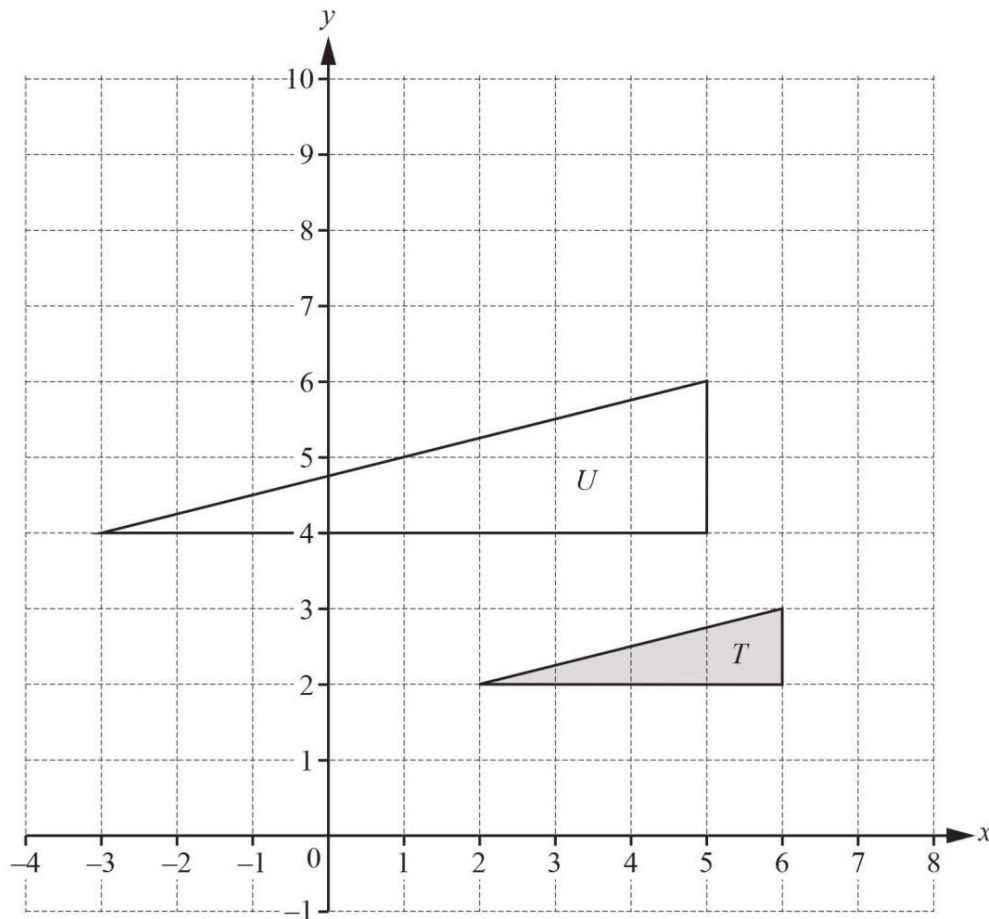
- (d) Enlarge triangle T by scale factor $-\frac{1}{2}$ with centre $(0, 0)$.

[2]

[Total: 8]

20

22



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

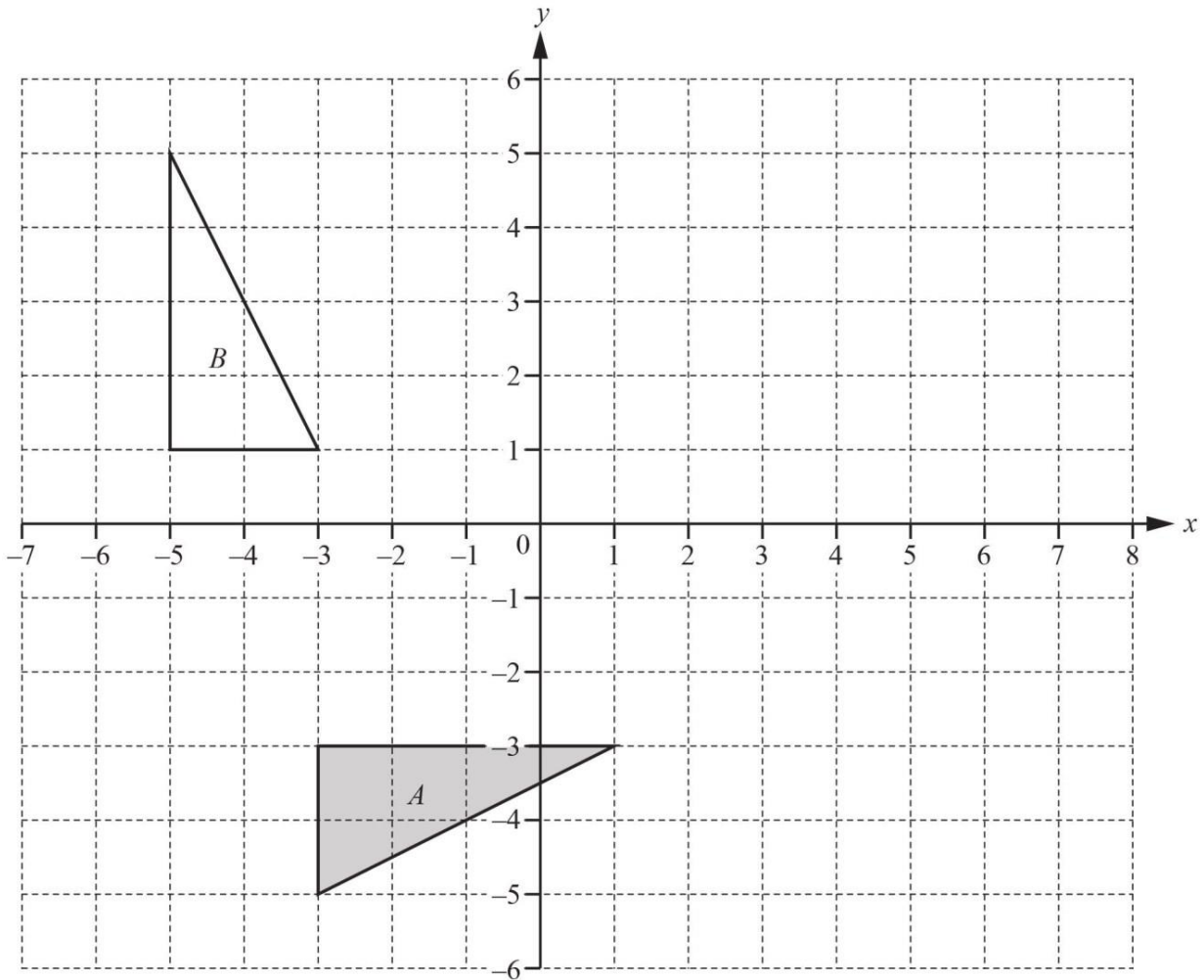
.....
.....

[3]

- (b) On the grid, draw the image of triangle T after a rotation through 90° clockwise about the point $(7, 3)$.

[3]

[Total: 6]



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

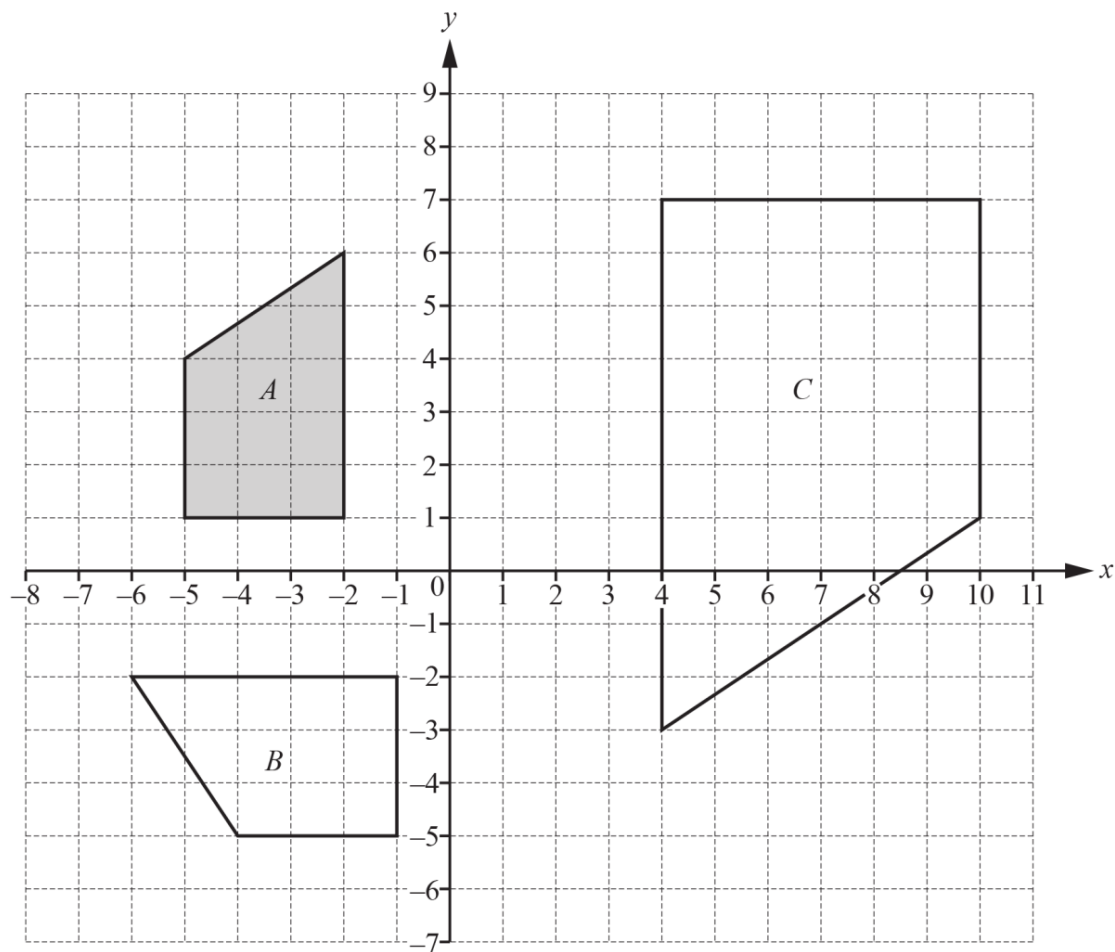
(ii) Draw the image of triangle A after a translation by the vector $\begin{pmatrix} -2 \\ 4 \end{pmatrix}$. [2]

(iii) Draw the image of triangle A after an enlargement by scale factor $-\frac{1}{2}$, centre (3, 1). [3]

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

.....

..... [3]



Describe fully the **single** transformation that maps

- (a) shape A onto shape B,

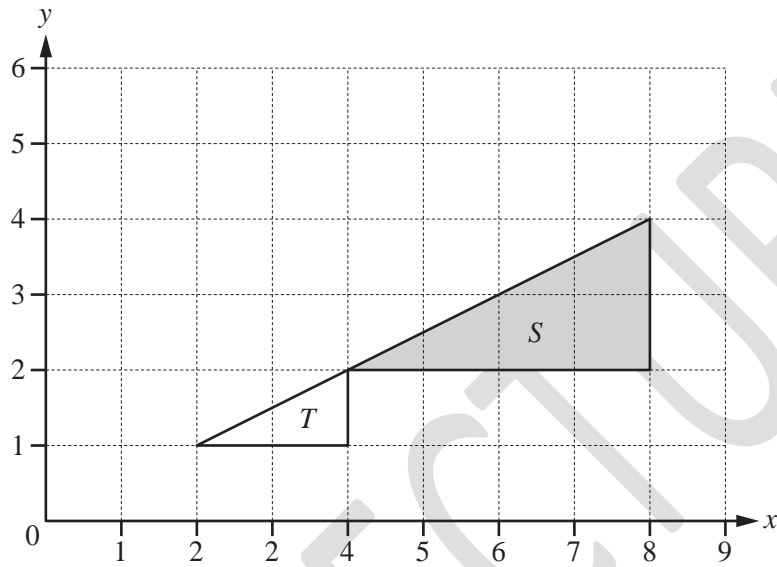
.....
 [3]

- (b) shape A onto shape C.

.....
 [3]

[Total: 6]

25



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

Answer.....

..... [3]

[Total: 3]

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