

Transformations

Difficulty: Easy

Question Paper 1

Level	IGCSE
Subject	Maths (0580/0980)
Exam Board	CIE
Topic	Vectors and transformations
Sub-Topic	Transformations
Paper	Paper 2
Difficulty	Easy
Booklet	Question Paper 1

Time allowed: 30 minutes

Score: /23

Percentage: /100

Grade Boundaries:

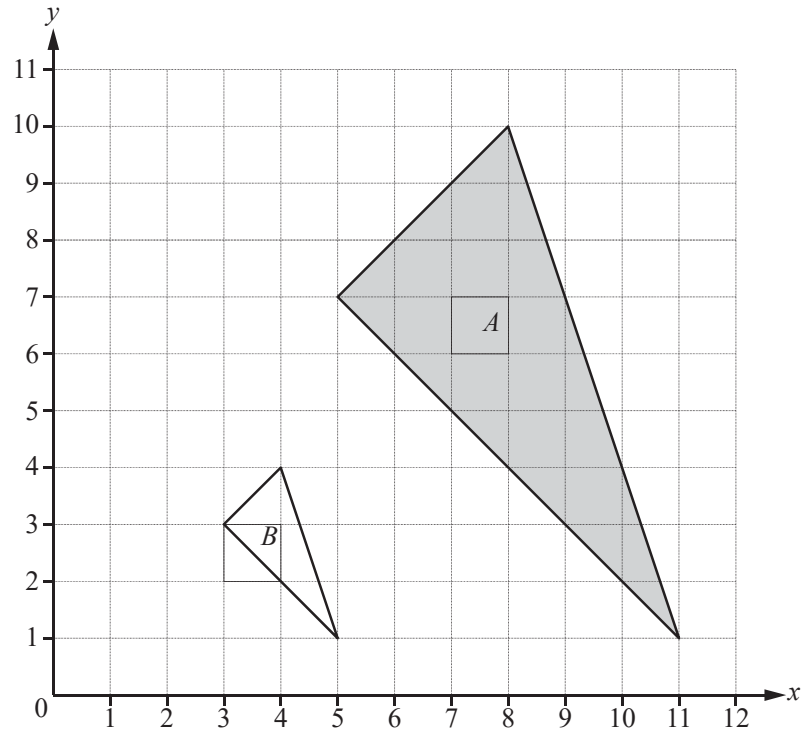
CIE IGCSE Maths (0580)

A*	A	B	C	D	E
>88%	76%	63%	51%	40%	30%

CIE IGCSE Maths (0980)

9	8	7	6	5	4	3
>94%	85%	77%	67%	57%	47%	35%

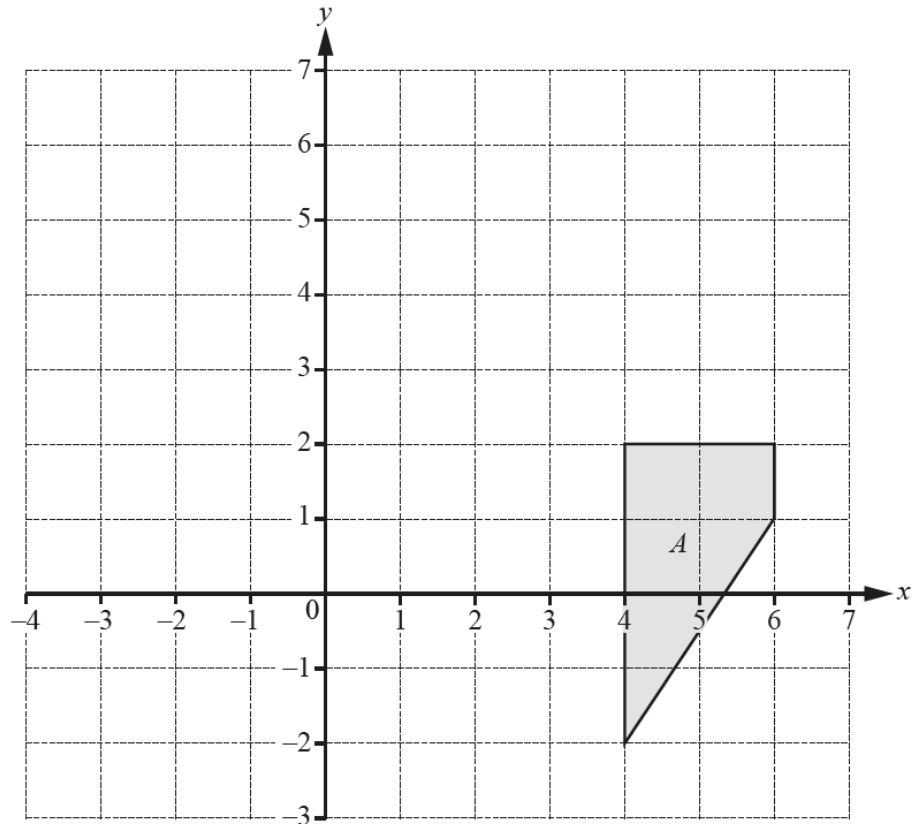
Question 1



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

[3]

Question 2



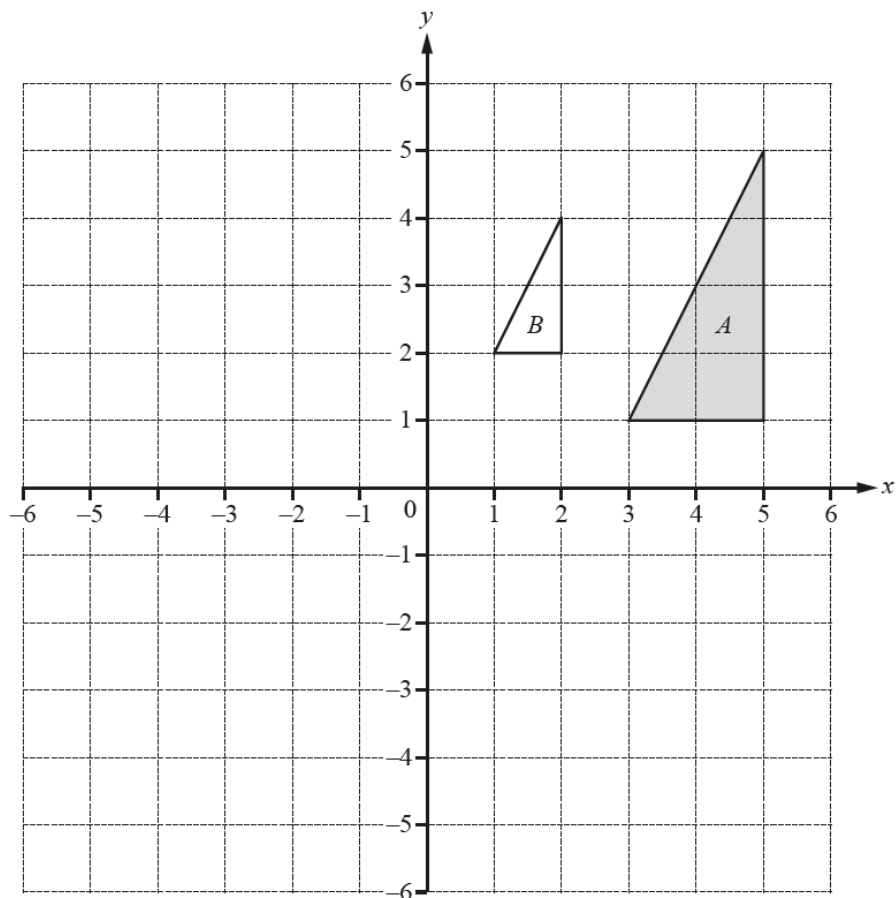
$T(X)$ is the image of the shape X after translation by the vector $\begin{pmatrix} -1 \\ 3 \end{pmatrix}$.

$M(Y)$ is the image of the shape Y after reflection in the line $x = 2$.

On the grid, draw $MT(A)$, the image of shape A after the transformation MT .

[3]

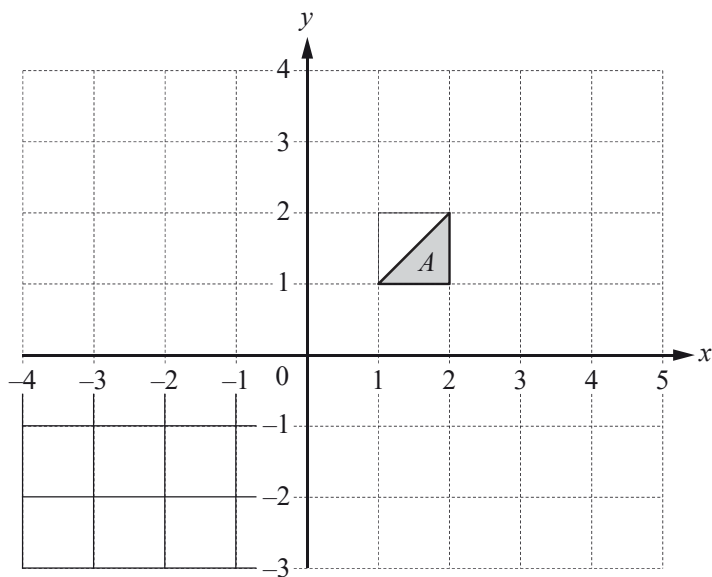
Question 3



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

[3]

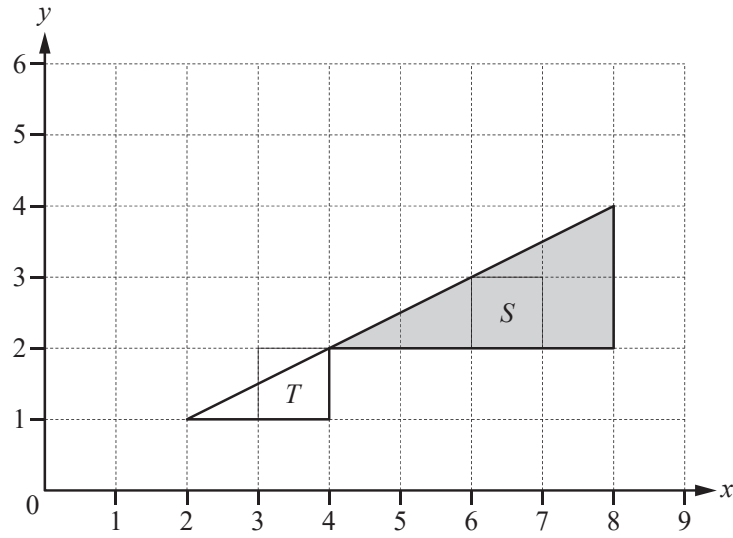
Question 4



Draw the image of shape A after a translation by the vector $\begin{pmatrix} 2 \\ -3 \end{pmatrix}$.

[2]

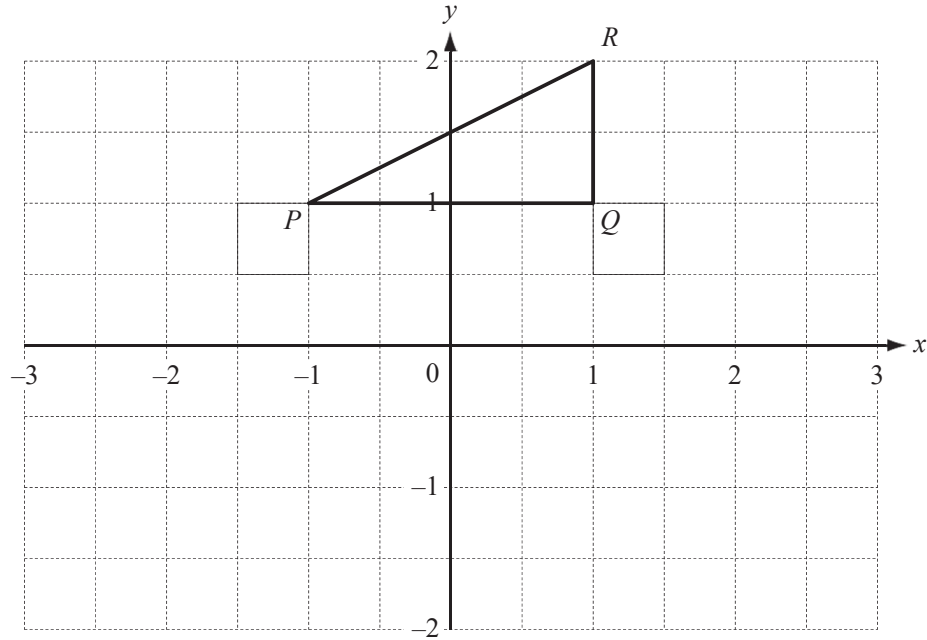
Question 5



(a) Describe fully the **single** transformation that maps triangle S onto triangle T . [3]

(b) Find the matrix which represents the transformation that maps triangle S onto triangle T . [2]

Question 1



The triangle PQR has co-ordinates $P(-1, 1)$, $Q(1, 1)$ and $R(1, 2)$.

- (a) Rotate triangle PQR by 90° clockwise about $(0, 0)$.
Label your image $P'Q'R'$.

[2]

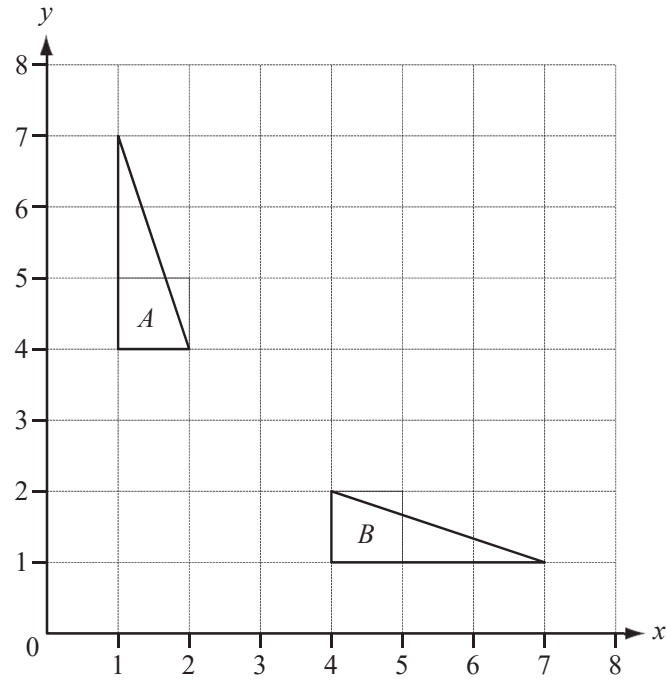
- (b) Reflect your triangle $P'Q'R'$ in the line $y = -x$.
Label your image $P''Q''R''$.

[2]

- (c) Describe fully the single transformation which maps triangle PQR onto triangle $P''Q''R''$.

[2]

Question 5



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

[2]

- (b) On the grid, draw the image of triangle *A* after rotation by 90° clockwise about the point (4, 4).

[2]