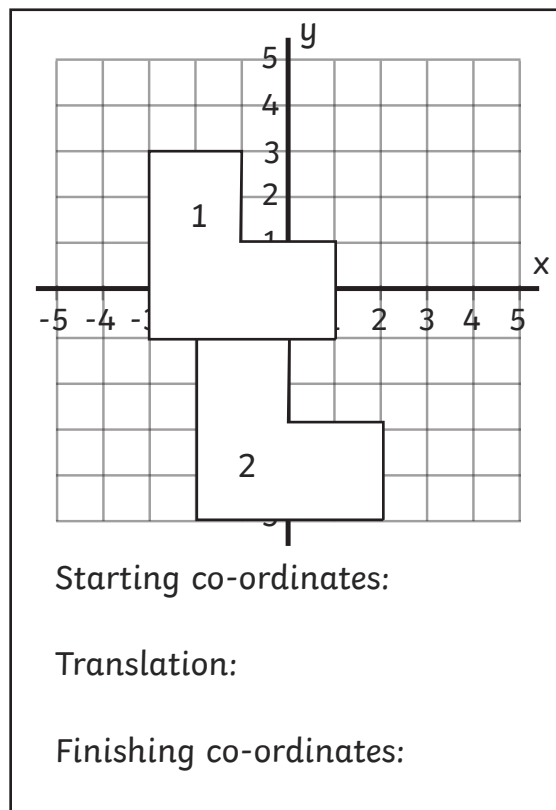
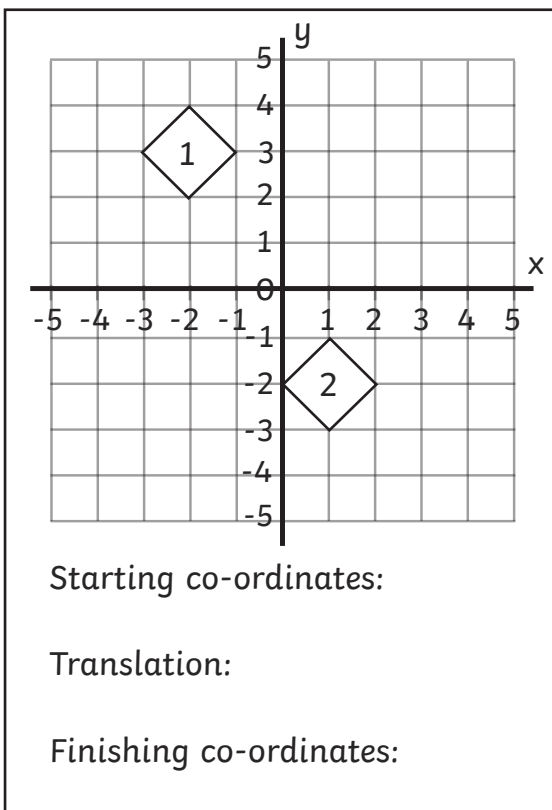
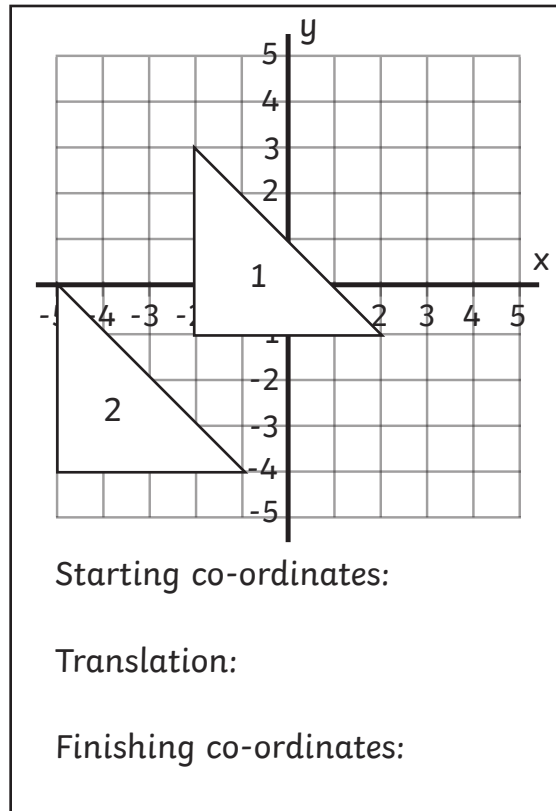
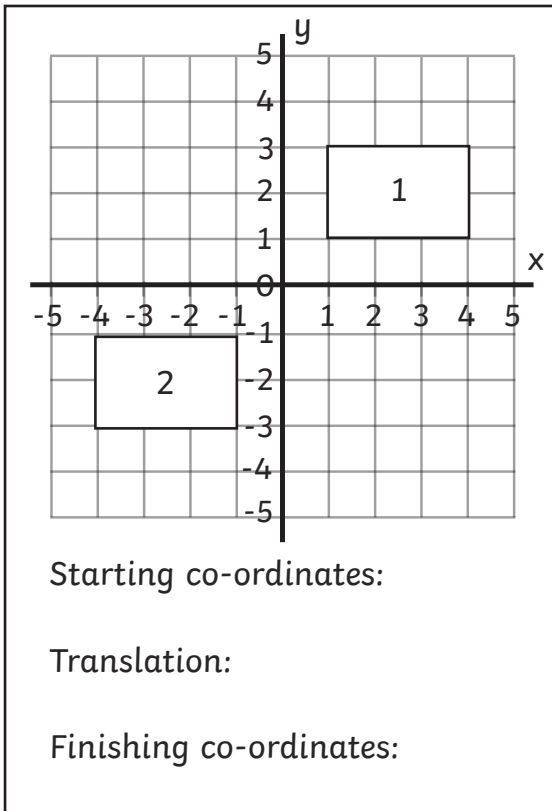


2D Shape Translations

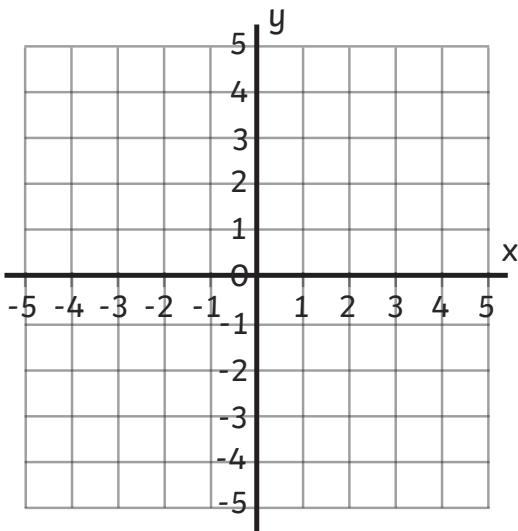
I can describe the translation of a 2D shape on a four-quadrant co-ordinate grid.

Describe the positions and translations of the 2D shapes.



Plot the following co-ordinates and following the translations to reveal a new shape.

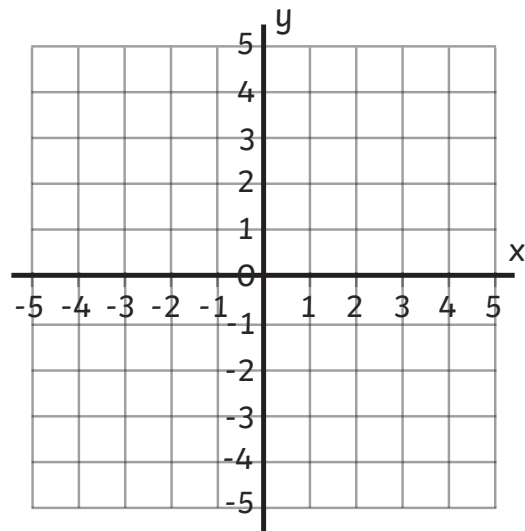
Plot these co-ordinates to reveal a shape: $(-3, -1)$, $(-3, -2)$, $(1, -1)$, $(1, -2)$



Translate the shape right 3, up 3.

What are the co-ordinates of the new shape?

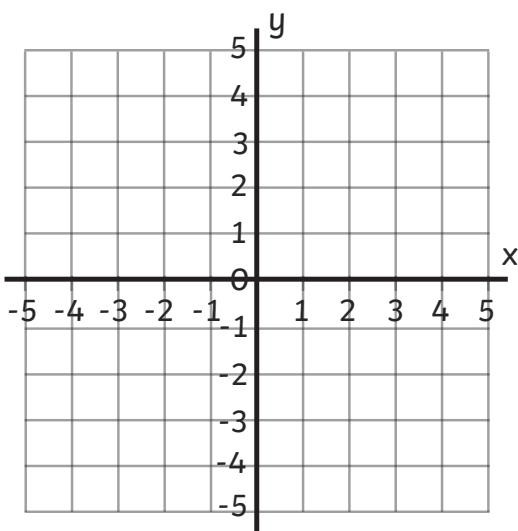
Plot these co-ordinates to reveal a shape: $(2, 1)$, $(4, 1)$, $(0, -3)$, $(0, -1)$



Translate the shape left 4, up 1.

What are the co-ordinates of the new shape?

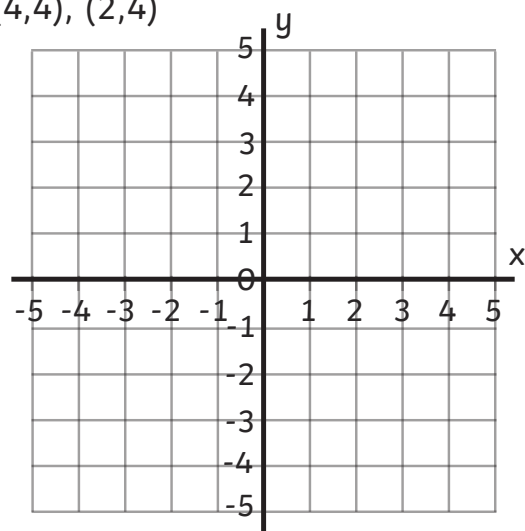
Plot these co-ordinates to reveal a shape: $(-2, 4)$, $(-4, -3)$, $(0, -3)$



Translate the shape right 4, down 2.

What are the co-ordinates of the new shape?

Plot these co-ordinates to reveal a shape: $(2, 1)$, $(3, 1)$, $(3, 3)$, $(4, 3)$, $(4, 4)$, $(2, 4)$



Translate the shape left 3, down 4.

What are the co-ordinates of the new shape?

2D Shape Translations Answers

Describe the positions and translations of the 2D shapes.

Starting co-ordinates:

(1,1), (4,1), (4,3), (1,3)

Translation: **Left 5, down 4**

Finishing co-ordinates:

(-4,-3), (-1,-3), (-1,-1), (-4,-1)

Starting co-ordinates:

(-2,-1), (2,-1), (-2,3)

Translation: **Left 3, down 3**

Finishing co-ordinates:

(-5,-4), (-1,-4), (-5,0)

Starting co-ordinates:

(-2,2), (-1,3), (-2,4), (-3,3)

Translation: **Right 3, down 5**

Finishing co-ordinates:

(1,-3), (2,-2), (1,-1), (0,-2)

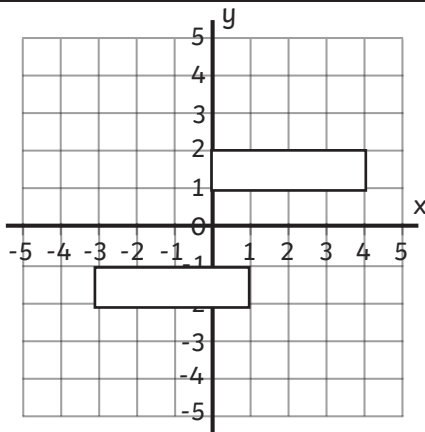
Starting co-ordinates:

(-3,-1), (1,-1), (1,1), (-1,1), (-1,3), (-3,3)

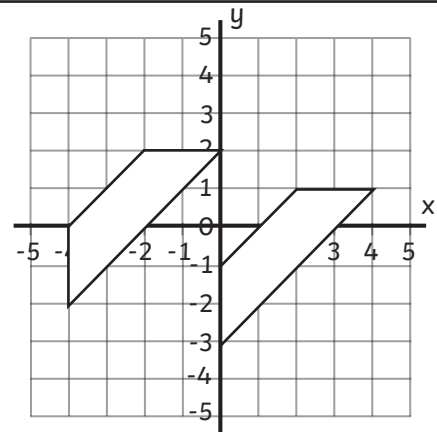
Translation: **Right 1, down 4**

Finishing co-ordinates:

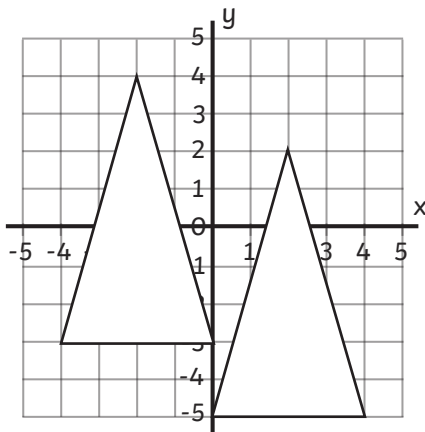
(-2,-5), (2,-5), (2,-3), (0,-3), (0,-1), (-2,-1)



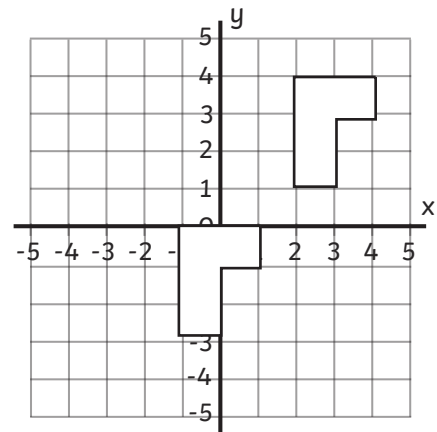
What are the co-ordinates of the new shape? **(0, 1), (4,1), (4,2), (0,2)**



What are the co-ordinates of the new shape? **(-2,2), (0,2), (-4,-2), (-4,0)**



What are the co-ordinates of the new shape? **(2,2), (0,-5), (4,-5)**



What are the co-ordinates of the new shape? **(-1,-3), (0,-3), (0,-1), (1,-1), (1,0), (-1,0)**

2D Shape Translations Answers

Describe the positions and translations of the 2D shapes.

Starting co-ordinates: $(-4,1)$, $(0,1)$, $(-2,6)$

Translation: **Right 9, down 11**

Finishing co-ordinates:
 $(5,-10)$, $(9,-10)$, $(7,-5)$

Starting co-ordinates:
 $(-7,-4)$, $(-1,-4)$, $(-1,-2)$, $(-7,-2)$

Translation: **Right 5, up 7**

Finishing co-ordinates:
 $(-2,3)$, $(4,3)$, $(4,5)$, $(-2,5)$

Starting co-ordinates: $(3,0)$, $(4,0)$, $(4,2)$,
 $(5,2)$, $(5,3)$, $(4,3)$, $(4,5)$, $(3,5)$, $(3,3)$,
 $(2,3)$, $(2,2)$, $(3,2)$

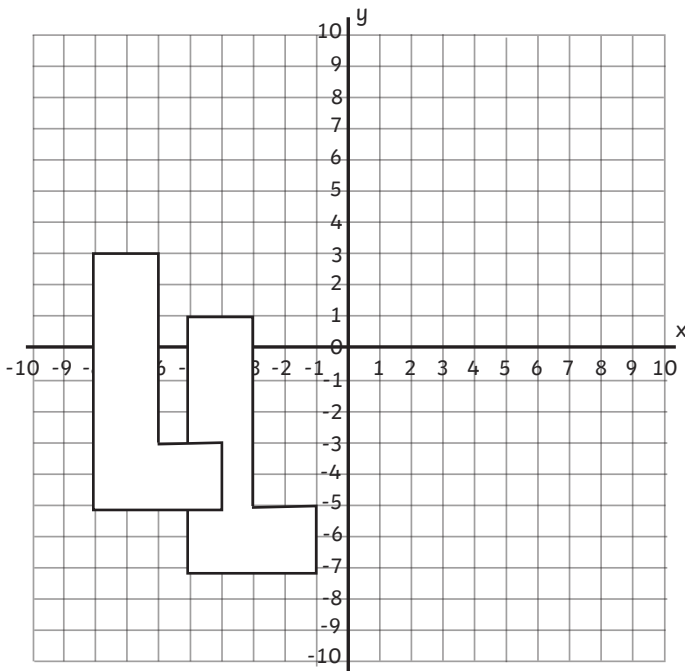
Translation: **Left 10, down 4**

Finishing co-ordinates: $(-7,-4)$, $(-6,-4)$,
 $(-6,-2)$, $(-5,-2)$, $(-5,-1)$, $(-6,-1)$, $(-6,1)$,
 $(-7,1)$, $(-7,-1)$, $(-8,-1)$, $(-8,-2)$, $(-7,-2)$

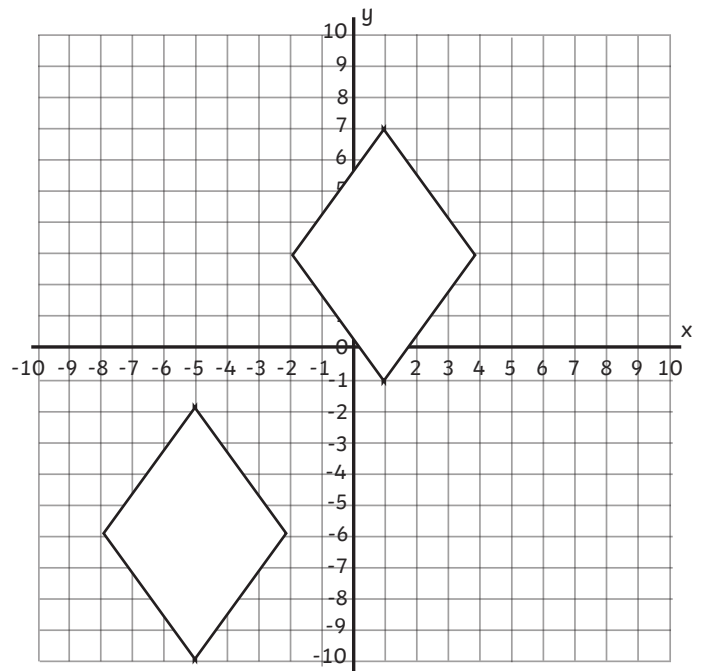
Starting co-ordinates:
 $(-5,1)$, $(-3,1)$, $(-2,6)$, $(-6,6)$,

Translation: **Right 9, down 8**

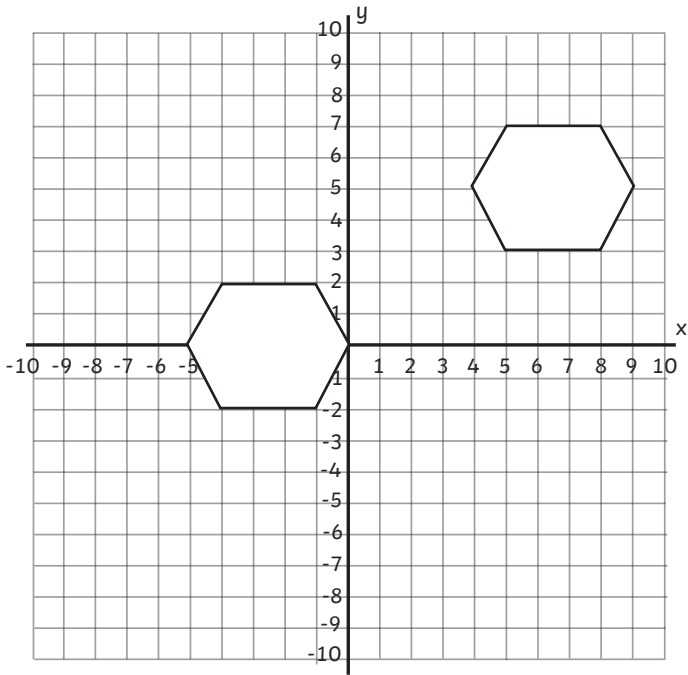
Finishing co-ordinates:
 $(4,-7)$, $(6,-7)$, $(7,-2)$, $(3,-2)$



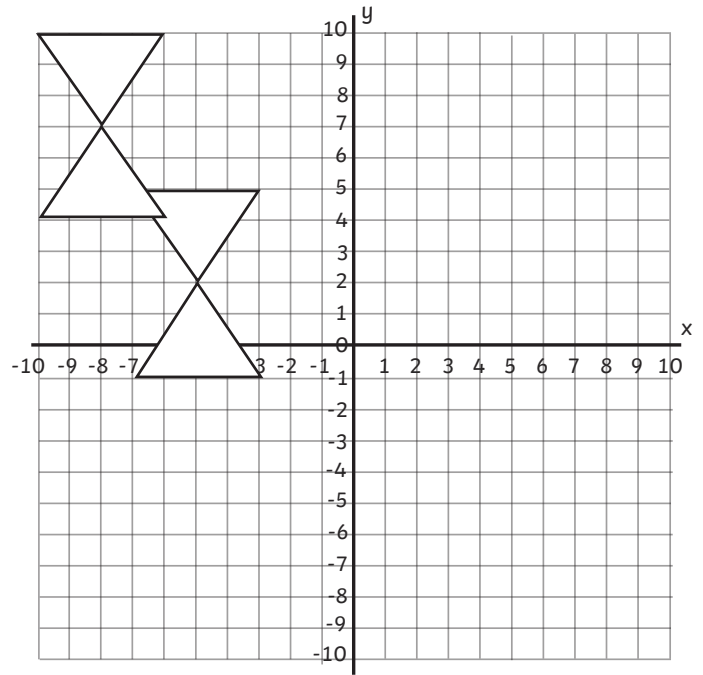
What are the co-ordinates of the new shape?
 $(-5,-7)$, $(-1,-7)$, $(-1,-5)$, $(-3,-5)$,
 $(-3,1)$, $(-5,1)$



What are the co-ordinates of the new shape?
 $(4,3)$, $(1,7)$, $(-2,3)$, $(1,-1)$



What are the co-ordinates of the new shape?
 $(-4, -2)$, $(-1, -2)$, $(0, 0)$, $(-1, 2)$, $(-4, 2)$, $(-5, 0)$



What are the co-ordinates of the new shape?
 $(-6, 4)$, $(-8, 7)$, $(-10, 10)$, $(-6, 10)$, $(-10, 4)$