## 2D Shape Translations

I can describe the translation of a 2D shape on a two-quadrant co-ordinate grid.
Describe the positions and translations of the 2D shapes.


Translation:

Finishing co-ordinates:


Starting co-ordinates:
Translation:
Finishing co-ordinates:


Translation:

Finishing co-ordinates:


Starting co-ordinates:
Translation:
Finishing co-ordinates:

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

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


Translate the shape left 6 , down 1.
What are the co-ordinates of the new shape?

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


Translate the shape left 2 , up 2.
What are the co-ordinates of the new shape?

Plot these co-ordinates to reveal a shape: $(-2,3),(-1,5),(-3,5)$


Translate the shape right 4, down 2.
What are co-ordinates of the new shape?

Plot these co-ordinates to reveal a shape: $(3,3),(4,4),(3,5),(2,4)$


Translate the shape left 3, down 3.
What are the co-ordinates of the new shape?

## 2D Shape Translations Answers

Describe the positions and translations of the 2 D shapes.

Starting co-ordinates: (1,1), (3,1), (2,2)
Translation: Left 6, up 2
Finishing co-ordinates:
$(-5,3),(-3,3),(-4,4)$

Starting co-ordinates:
$(-7,2),(-2,2),(-2,3),(-7,3)$
Translation: Right 8, down 1
Finishing co-ordinates:
$(1,1),(6,1),(6,2),(1,2)$


What are the co-ordinates of the new shape? $(-6,0),(-4,0),(-4,2),(-6,2)$


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

Starting co-ordinates:
$(-6,1),(-3,1),(-3,3),(-6,3)$
Translation: Right 8, up 2
Finishing co-ordinates:
$(2,3),(5,3),(5,5),(2,5)$

Starting co-ordinates: ( $\mathbf{- 2 , 1} \mathbf{1}, \mathbf{( 2 , 1 )}, \mathbf{( 0 , 5})$
Translation: Right 3, up 1
Finishing co-ordinates: $(1,2),(5,2),(3,6)$


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


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

## 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:
$(-2,2),(-1,3),(-2,4),(-3,3)$
Translation: Right 3, down 5
Finishing co-ordinates:
$(1,-3),(2,-2),(1,-1),(0,-2)$


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? $(2,2),(0,-5),(4,-5)$

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:
$(-3,-1),(1,-1),(1,1),(-1,1),(-1,3),(-3,3)$
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? $(-2,2),(0,2),(-4,-2),(-4,0)$


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

