Translation of Shapes

Aim

- To be able to draw and translate simple shapes on the coordinate plane.

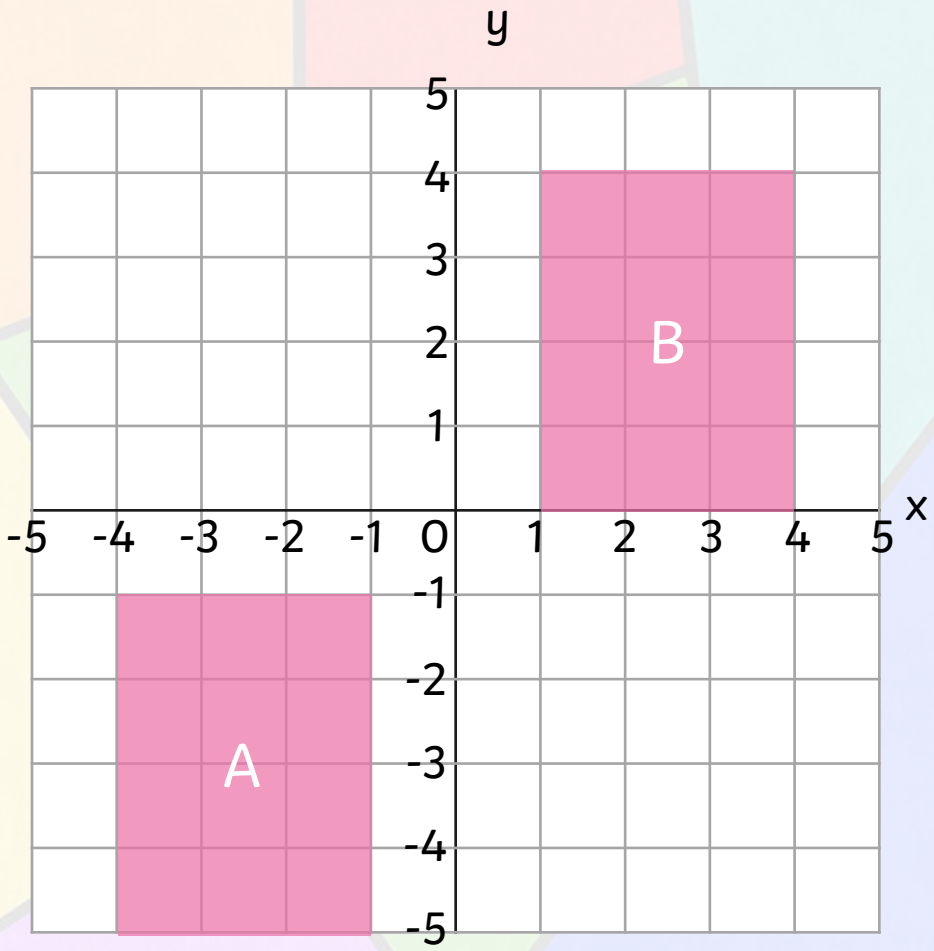
Success Criteria

- To know what translation of a shape means.
- To know how to translate shapes in all four quadrants.
- To know how to describe how a shape has been translated.

What Is a Translation?

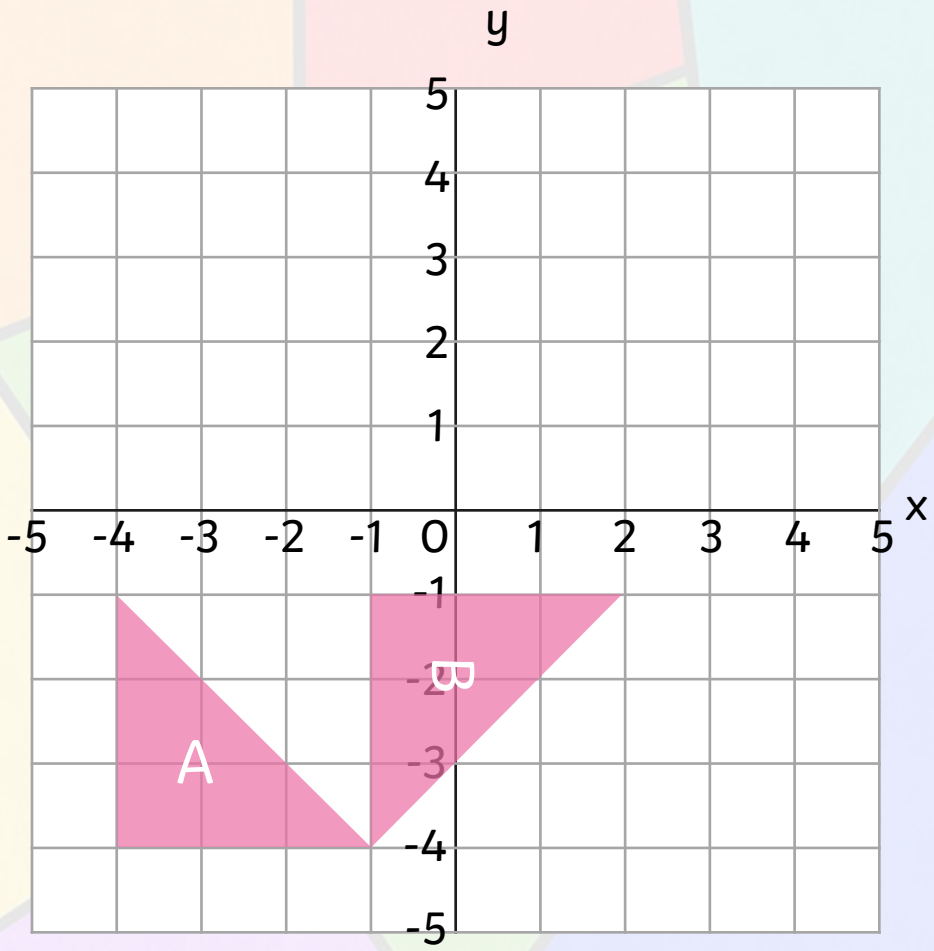
A translation is when a shape **moves from one position to another without being rotated or flipped.**

On this grid, rectangle A has been translated to position B.



What Is a Translation?

This is **not a translation** because the **shape has been rotated.**

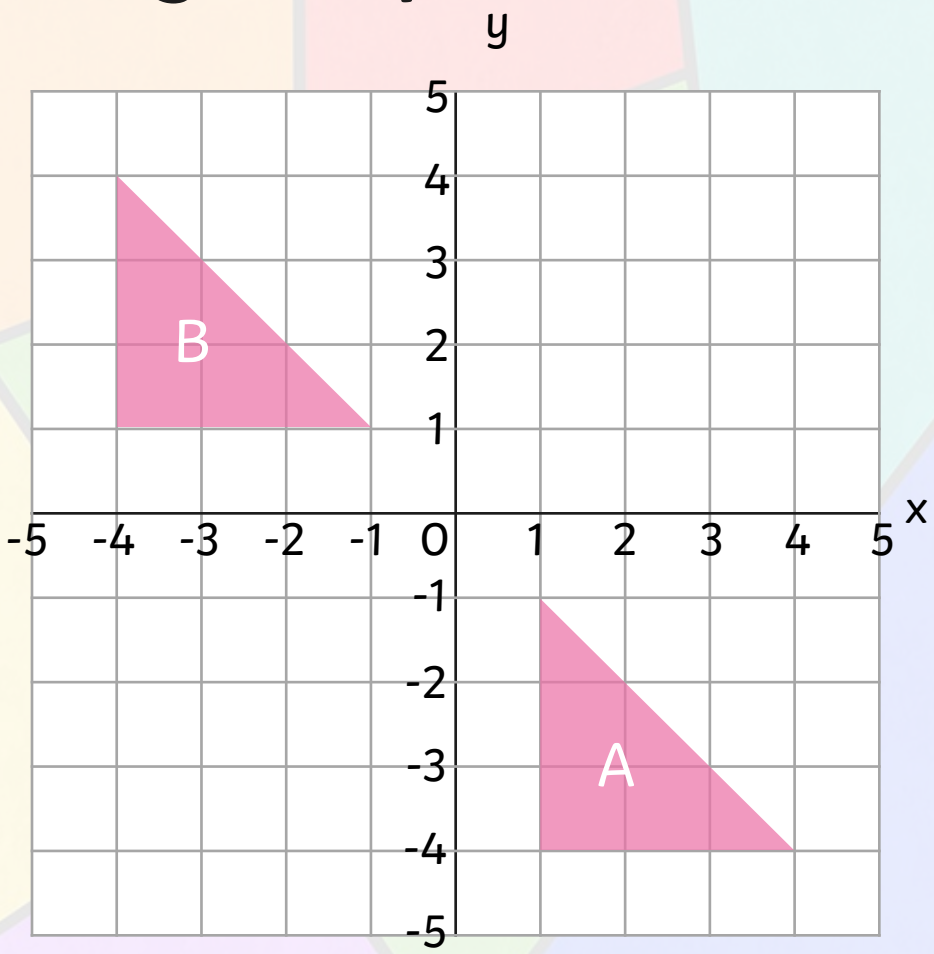


Translating Shapes

Is this a translation?

Yes.

This is a translation.

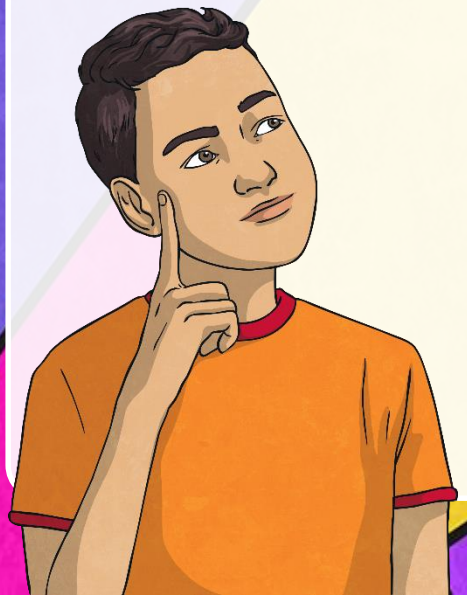


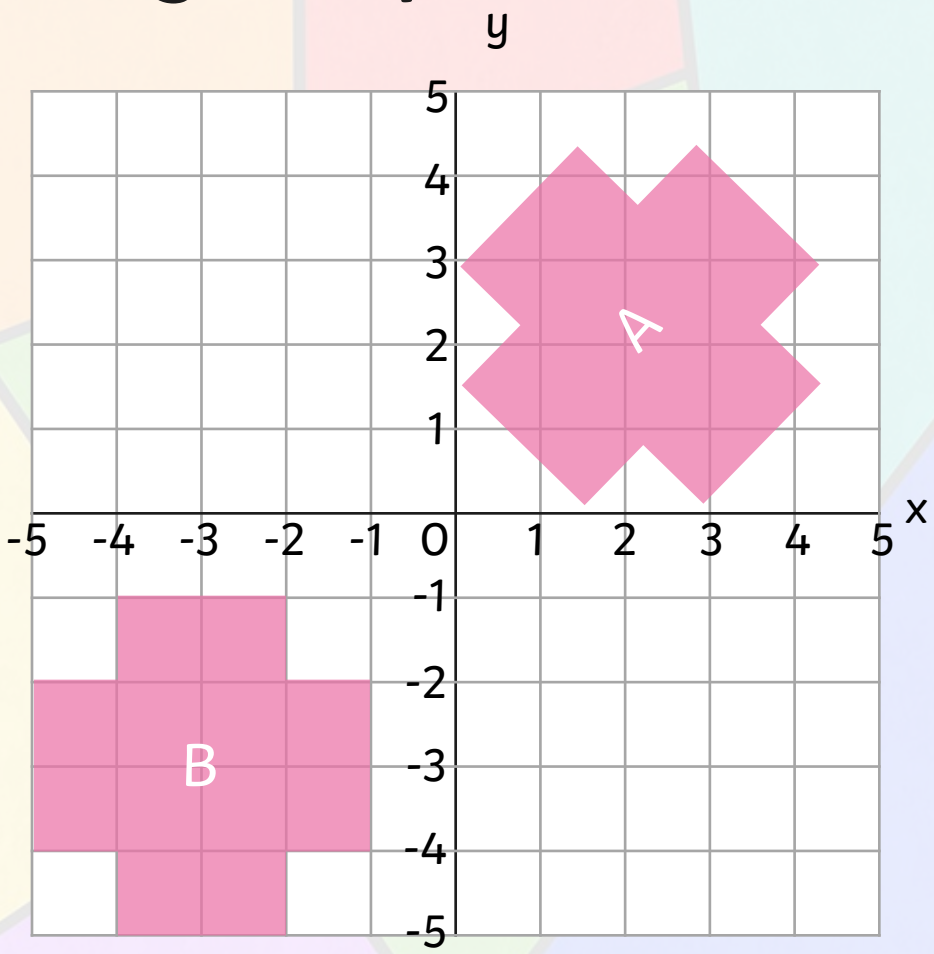
Translating Shapes

Is this a translation?

No.

This is not a translation because the shape has been translated **and** rotated.



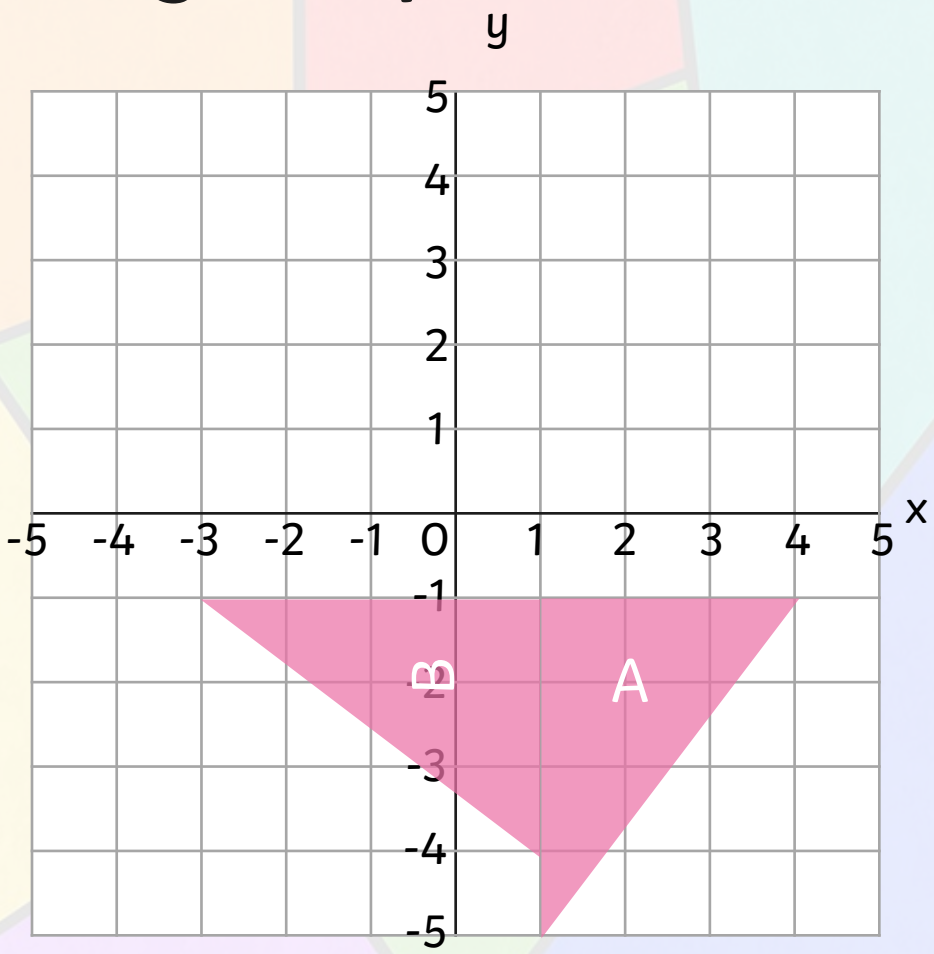


Translating Shapes

Is this a translation?

No.

This is not a translation because the shape has been rotated.

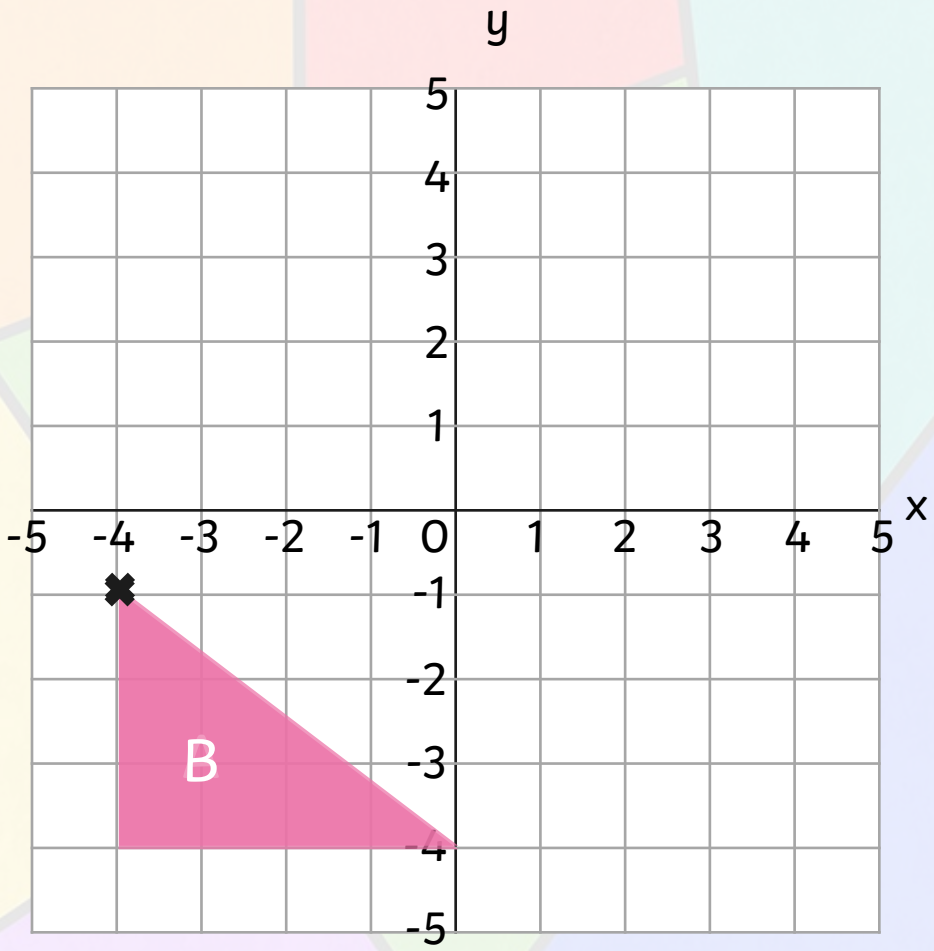


How Do We Describe a Translation?

To describe a translation, you have to say how many squares it has moved to the left or right, and how many squares it has moved up or down.

The shape has been translated **4 squares to the right.** Then
3 squares up.

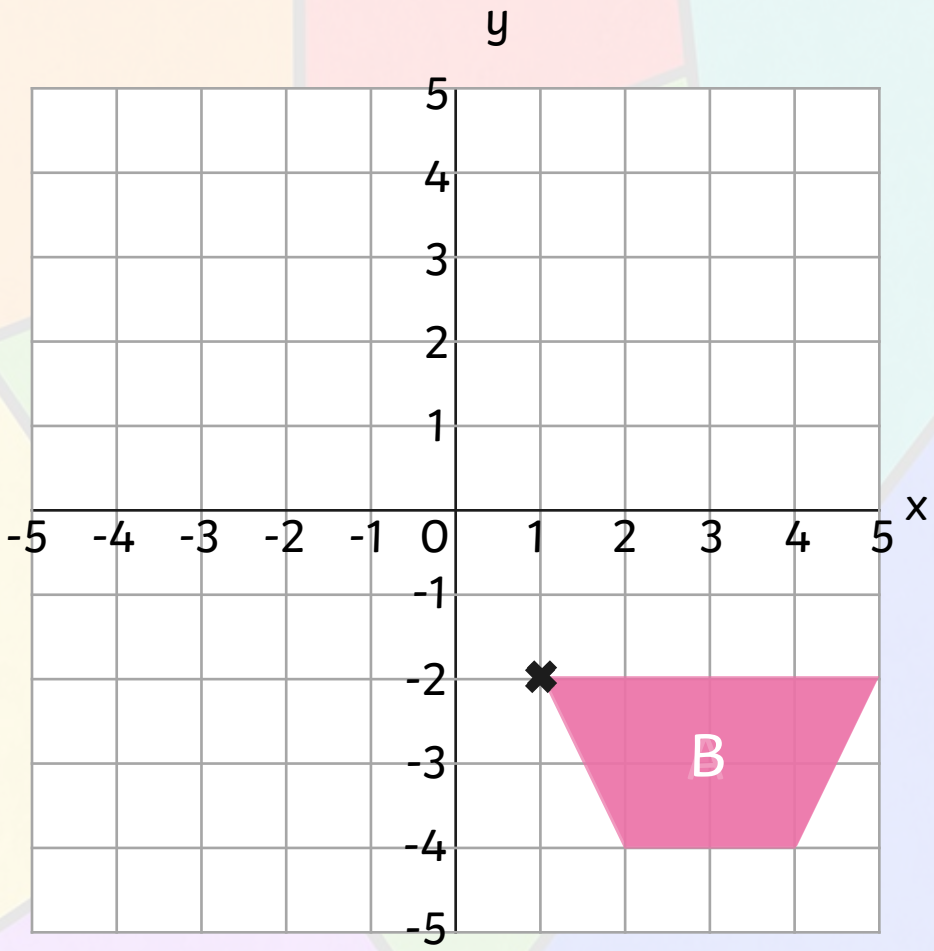
The coordinates of the black point on shape A are (-4,-1). What are the coordinates of the black point shown on shape B?
(0,2)



How Do We Describe a Translation?

The shape has been translated **4 squares to the left** and **5 squares up.**

The coordinates of the black point on shape A are (1,-2). What are the coordinates of the black point shown on shape B?

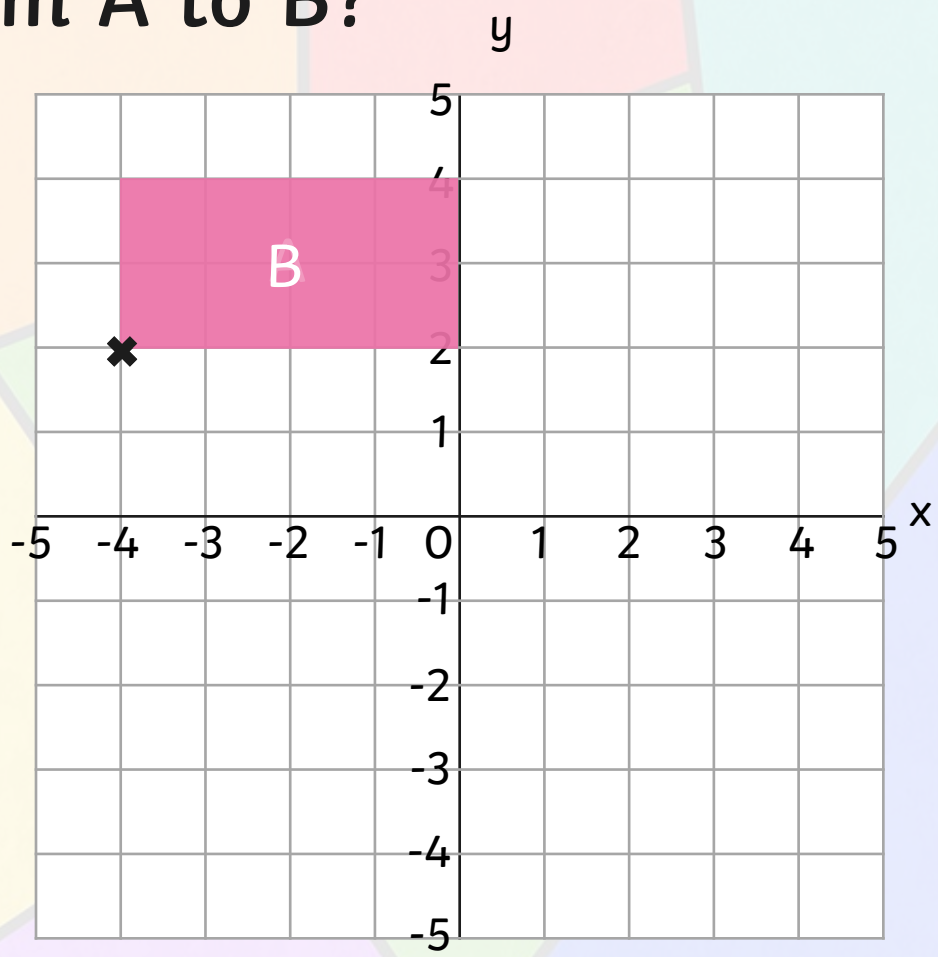


How Has This Shape Been Translated From A to B?

The shape has been translated **3 squares to the right** and **4 squares down.**

Can you work out the coordinates of the black point on shape A and shape B?

Can you work out all the coordinates of shape B?

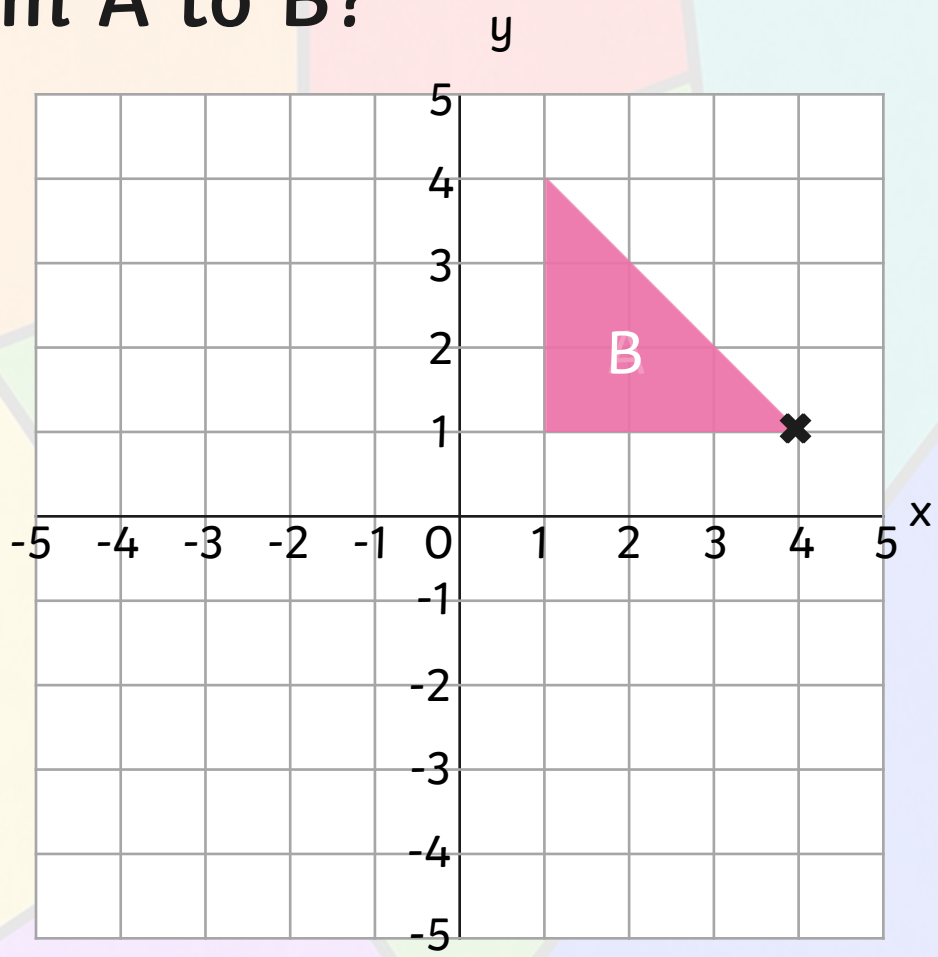


How Has This Shape Been Translated From A to B?

The shape has been translated **3 squares to the left** and **5 squares down.**

Can you work out the coordinates of the black point on shape A and shape B?

Can you work out all the coordinates of shape B?

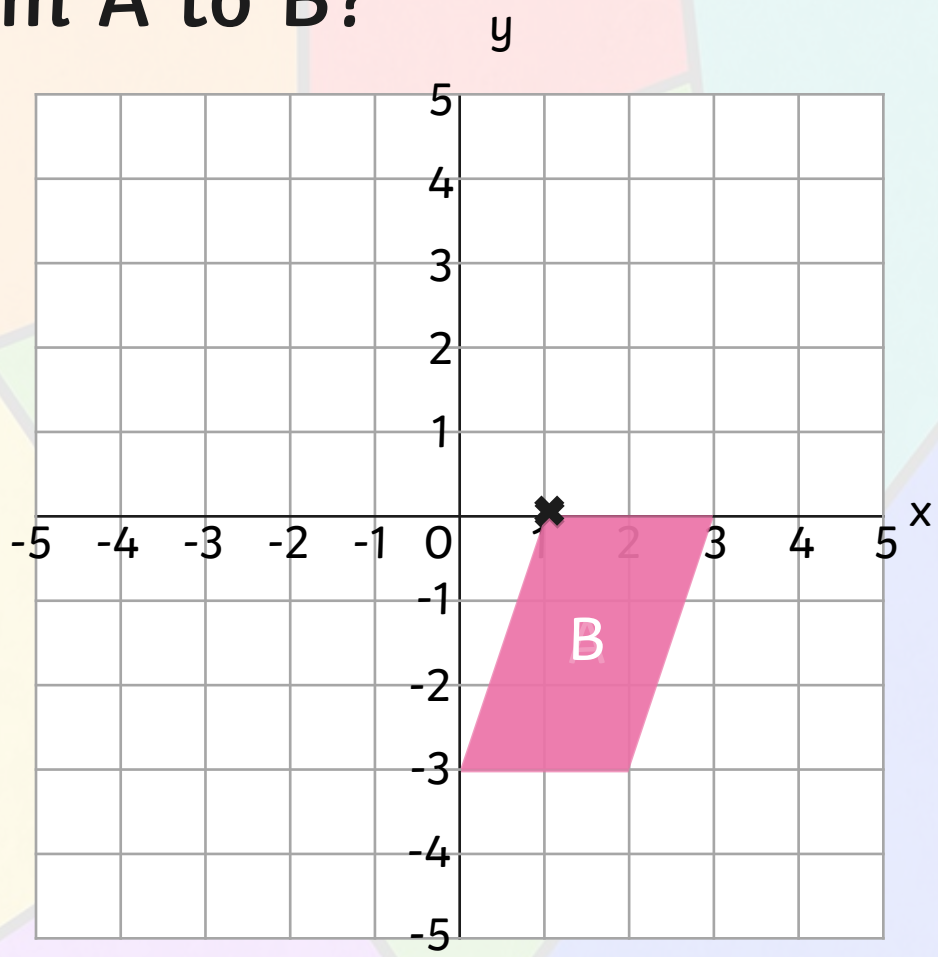


How Has This Shape Been Translated From A to B?

The shape has been translated **3 squares to the left** and **2 squares up.**

Can you work out the coordinates of the black point on shape A and shape B?

Can you work out all the coordinates of shape B?

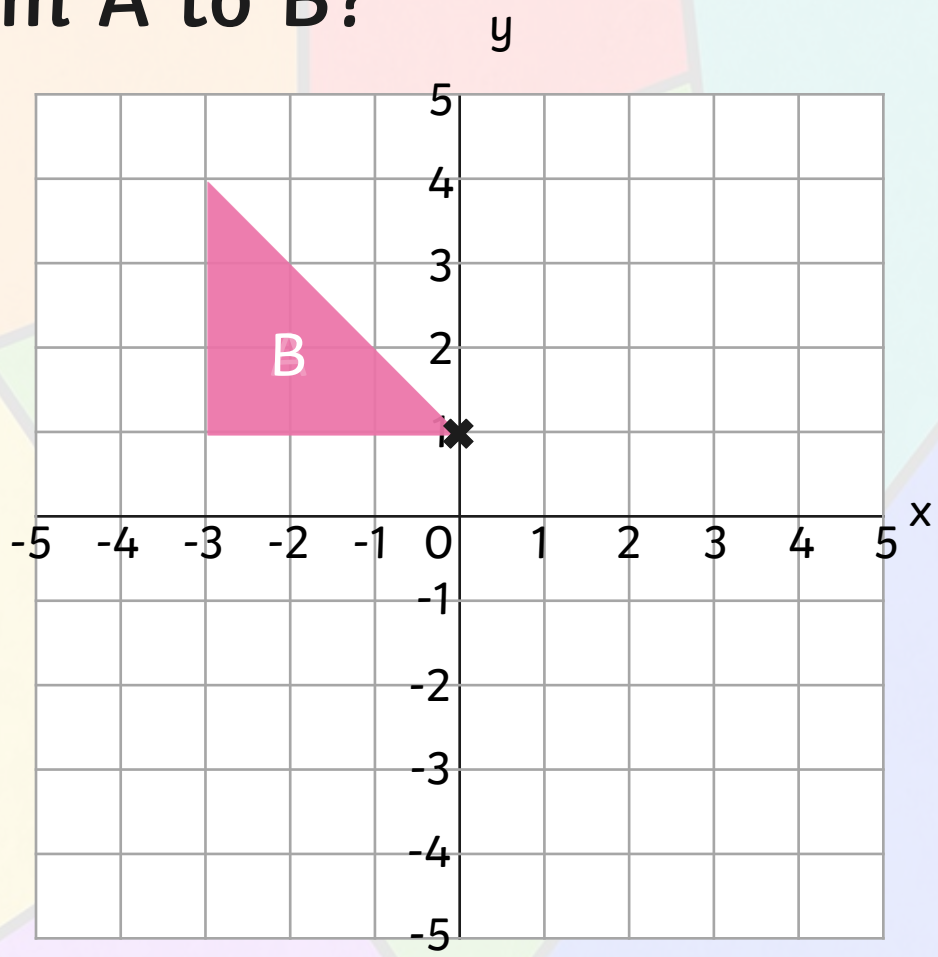


How Has This Shape Been Translated From A to B?

How has this shape been translated?

The shape has been translated **4 squares to the right** and **3 squares down.**

Can you work out all the coordinates of shape A and shape B?

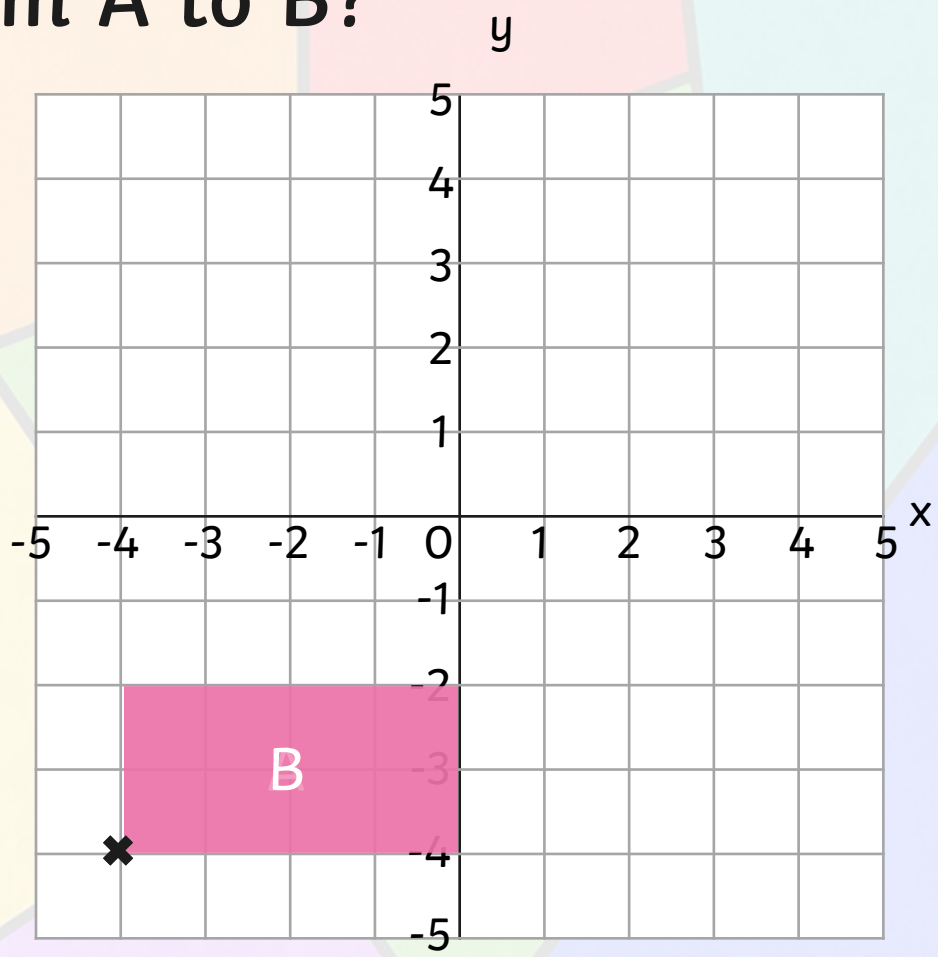


How Has This Shape Been Translated From A to B?

How has this shape been translated?

The shape has been translated **5 squares to the right** and **6 squares up.**

Can you work out all the coordinates of shape A and shape B?

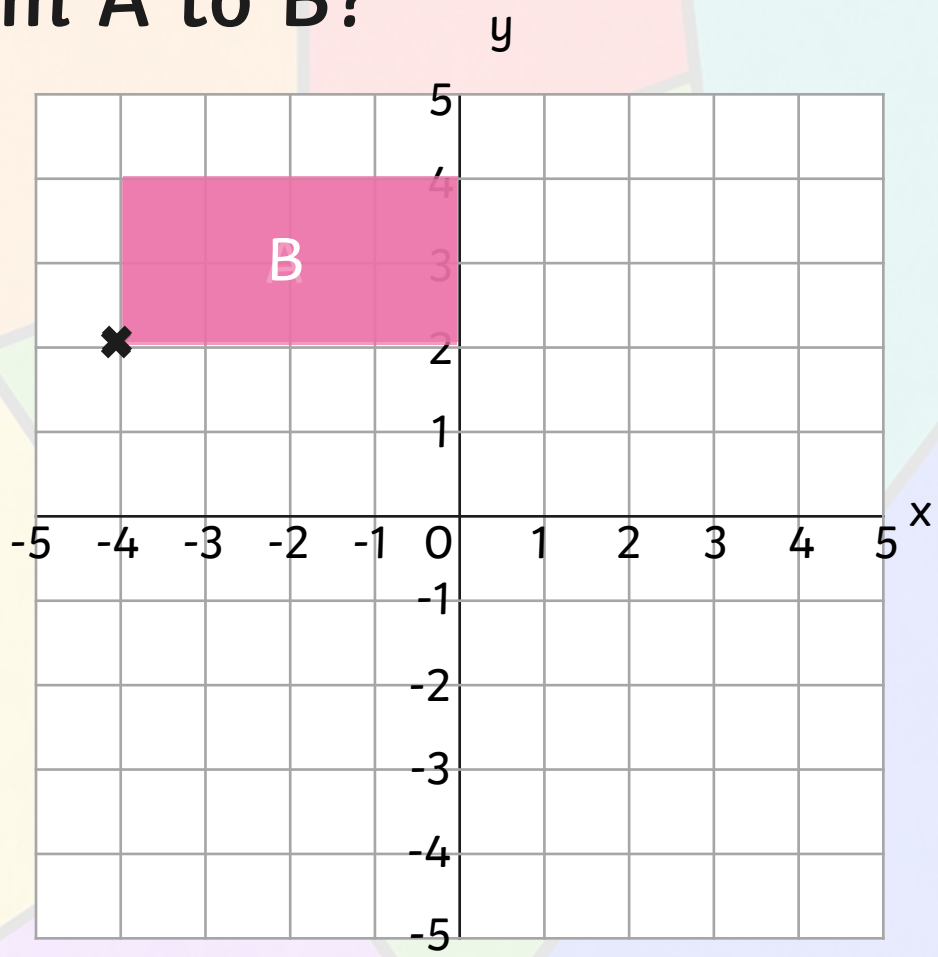


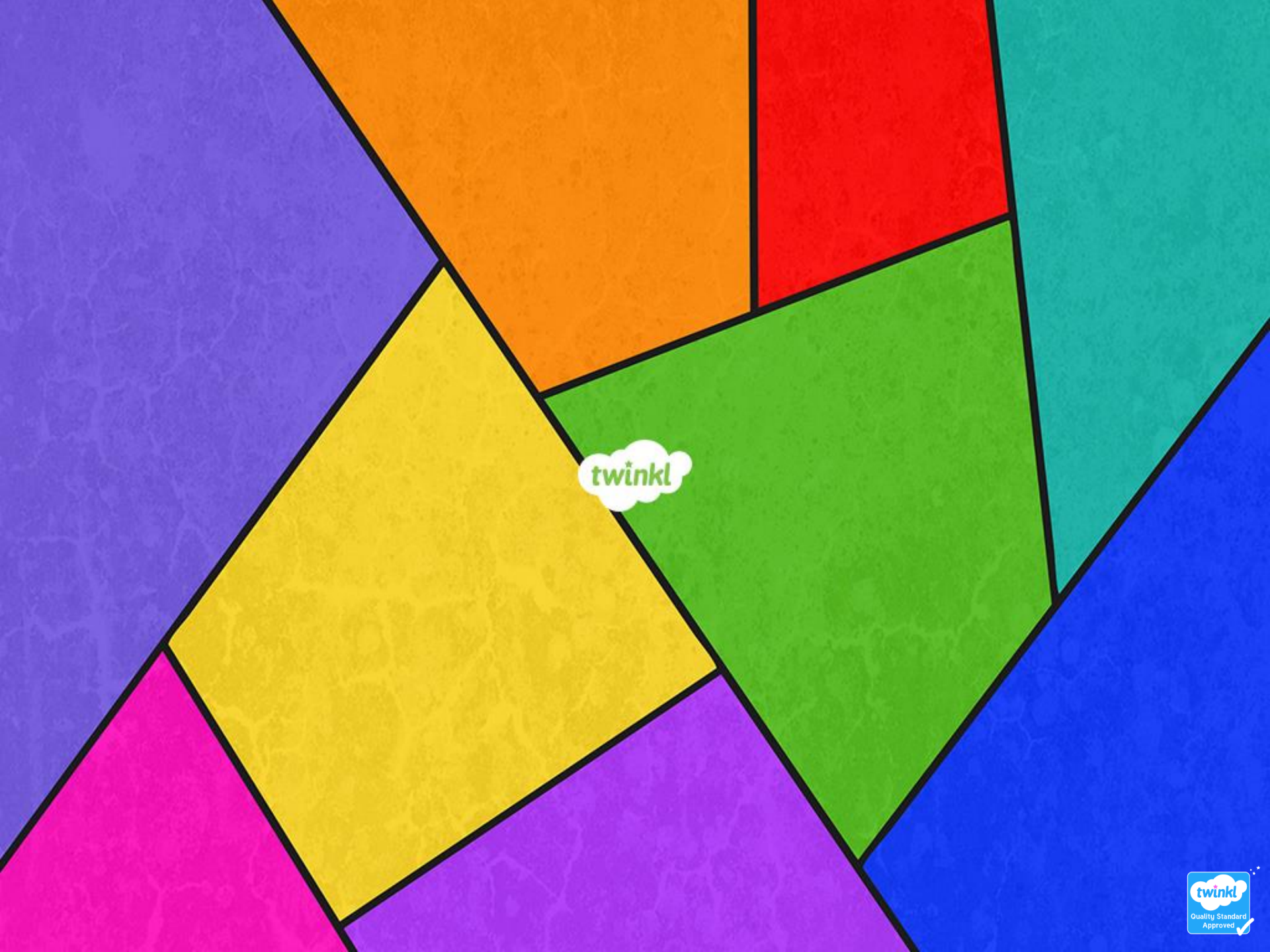
How Has This Shape Been Translated From A to B?

Shape A has coordinates
(-4,2) (-4, 4) (0,4) (0,2)

Shape A has been translated
3 squares to the right
and **2 squares down.**

What are its new coordinates?




twinkl
twinkl
Quality Standard
Approved