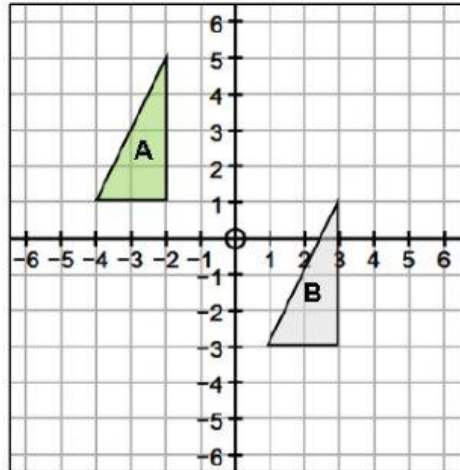


Translations

A **translation** moves every point of a figure the same _____ in the same direction

Prime Notation:
' is used to represent a transformed figure
' = "prime"

The original figure and the translated figure are _____



**R
U
L
E
S**

LEFT

$$(x, y) \longrightarrow (x - 4, y)$$

"Translate 4 units left"

RIGHT

$$(x, y) \longrightarrow (x + 7, y)$$

"Translate 7 units right"

UP

$$(x, y) \longrightarrow (x, y + 3)$$

"Translate 3 units up"

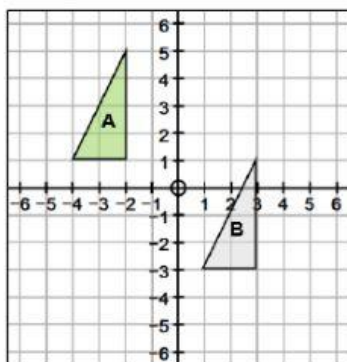
DOWN

$$(x, y) \longrightarrow (x, y - 1)$$

"Translate 1 unit down"

EXAMPLES:

Describe a translation that maps $\triangle A$ to $\triangle B$



Find the coordinates of a figure translated 5 units left and 8 units down

$$A(0, 9) \longrightarrow \underline{\hspace{2cm}}$$

$$B(-4, 5) \longrightarrow \underline{\hspace{2cm}}$$

$$C(8, 12) \longrightarrow \underline{\hspace{2cm}}$$

Find the coordinates of a figure translated 1 unit right and 6 units up

$$D(-1, 7) \longrightarrow \underline{\hspace{2cm}}$$

$$E(6, 4) \longrightarrow \underline{\hspace{2cm}}$$

$$F(2, -9) \longrightarrow \underline{\hspace{2cm}}$$