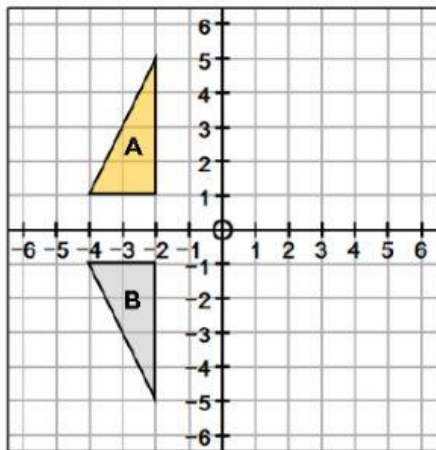


Reflections



A **reflection** _____ a figure over a line

When a figure has been reflected, it will be a _____ image

The original figure and the translated figure are _____

**R
U
L
E
S**

x-axis

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

"Reflected over the x-axis"

y-axis

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

"Reflected over the y-axis"

y = x

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

"Reflected over y = x"

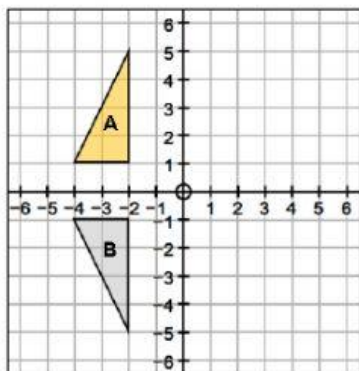
y = -x

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

"Reflected over y = -x"

EXAMPLES:

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



Find the coordinates of a figure reflected over the **y-axis**

$$A(-1, 3) \longrightarrow \underline{\hspace{2cm}}$$

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

$$C(0, -4) \longrightarrow \underline{\hspace{2cm}}$$

Find the coordinates of a figure reflected over the **x-axis**

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

$$E(-3, -6) \longrightarrow \underline{\hspace{2cm}}$$

$$F(10, 4) \longrightarrow \underline{\hspace{2cm}}$$