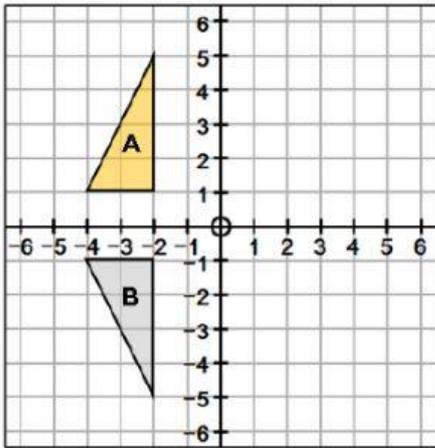# Reflections

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 _____

RULES

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

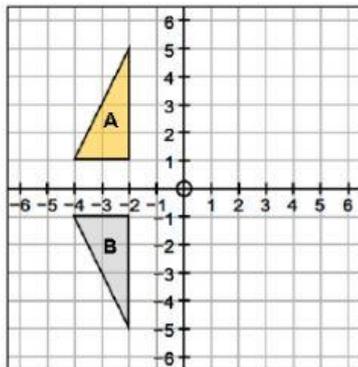$(x, y) \longrightarrow (y, x)$

"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**

$A(-1, 3) \longrightarrow$ _____

$B(5, 2) \longrightarrow$ _____

$C(0, -4) \longrightarrow$ _____

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

$D(2, 7) \longrightarrow$ _____

$E(-3, -6) \longrightarrow$ _____

$F(10, 4) \longrightarrow$ _____