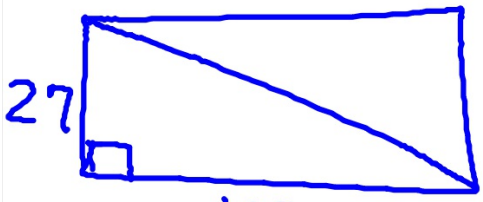
Thursday, February 25, 2016

1.

Ms. Shurig just bought a big-screen TV set. The screen is 48 inches wide and 27 inches high. Find the length of its diagonal.

55.07 inches



$a^2 + b^2 = c^2$

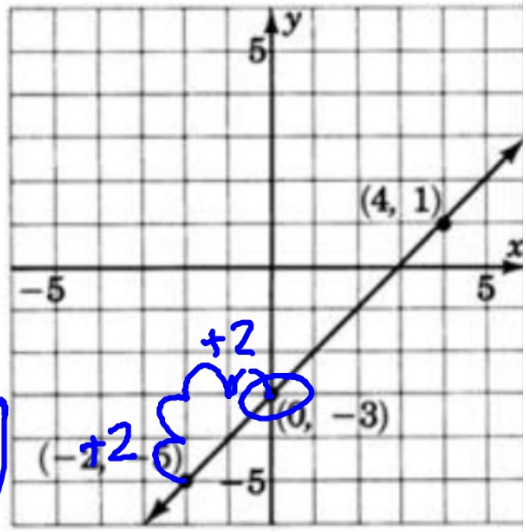
$27^2 + 48^2 = c^2$

$729 + 2304 = c^2$

$3033 = c^2$

$\sqrt{3033} = \sqrt{c^2}$

$55.07 = c$



2. What is the slope of the line graphed above?

$m = \frac{\Delta y}{\Delta x} = \frac{2}{2} = 1$

3. What is the y-intercept of the line graphed above?

$b = -3$ (0, -3)

4. Write the slope-intercept equation of the line graphed above.

$y = mx + b$

$y = 1x + (-3)$

$y = x - 3$

Daily HW Check- Cumulative Review

#8 #10

SHOW YOUR WORK!!!!!

Transformations

Vocabulary:
Transform: Changing a shape by turning, flipping, sliding, or resizing.

Rigid transformation: the pre-image and the image both have exactly the same size and shape since the measures of the corresponding angles and corresponding line segments remain equal (are congruent).

Congruent: same size, same shape ≅

Translations: "Sliding" a figure

Reflection: “flipping” of an object over a line, known as the “line of reflection”.

Translations

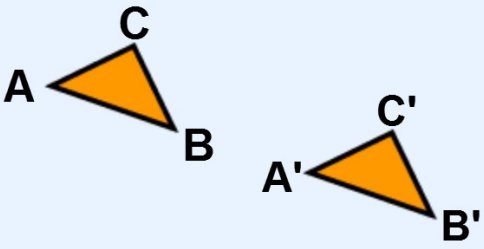
To TRANSLATE, means to slide.

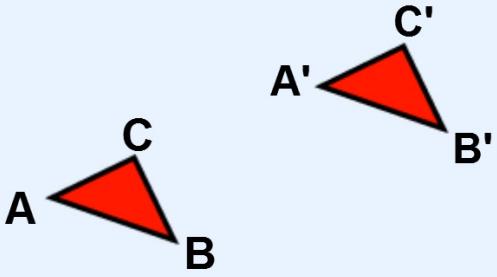
To *translate* a figure on a coordinate plane, you slide the figure in the direction given in each problem.

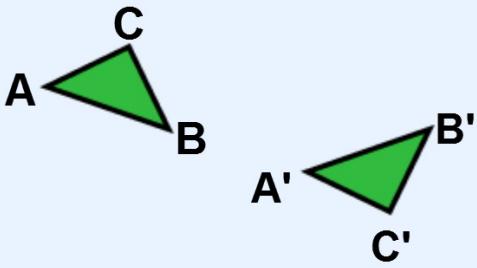
1) Choose one point on the original figure and slide it in the direction(s) given.
2) This new point will be labeled with (') after each new letter. This symbol is called prime, which lets you know this figure is the new image.
3) Slide the other original points in the exact same direction as the first point (making sure to label them with the prime (') mark, also).
4) Draw the lines to create the new image, which should be identical to the original (pre-image), just in a new place on the coordinate grid.

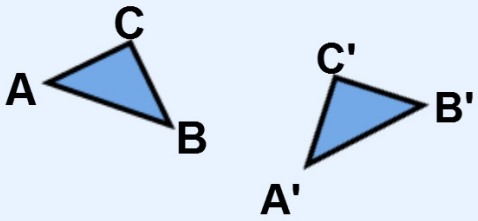
o

Identify the Pre-Image and the Image

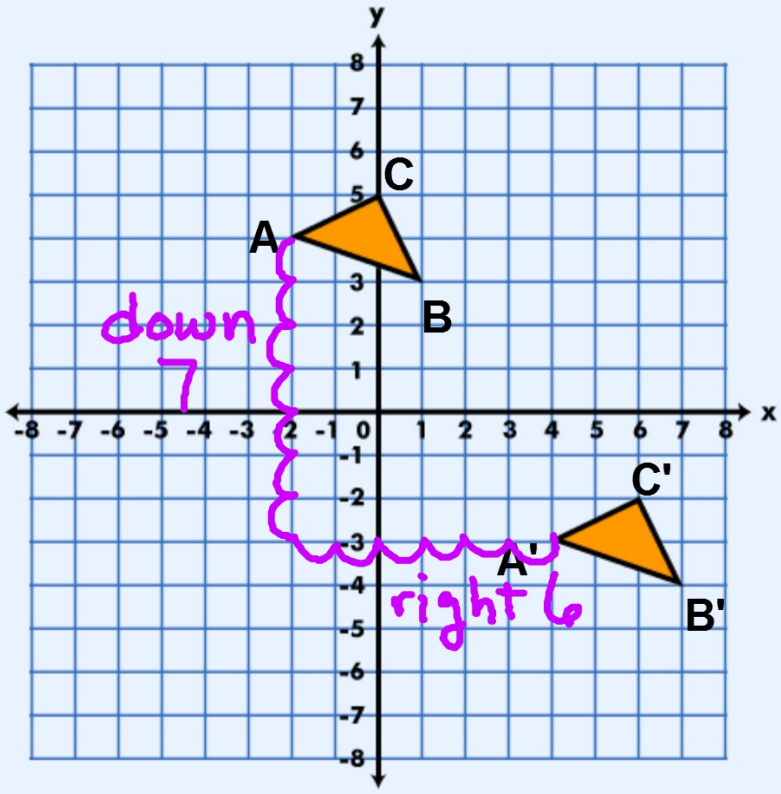




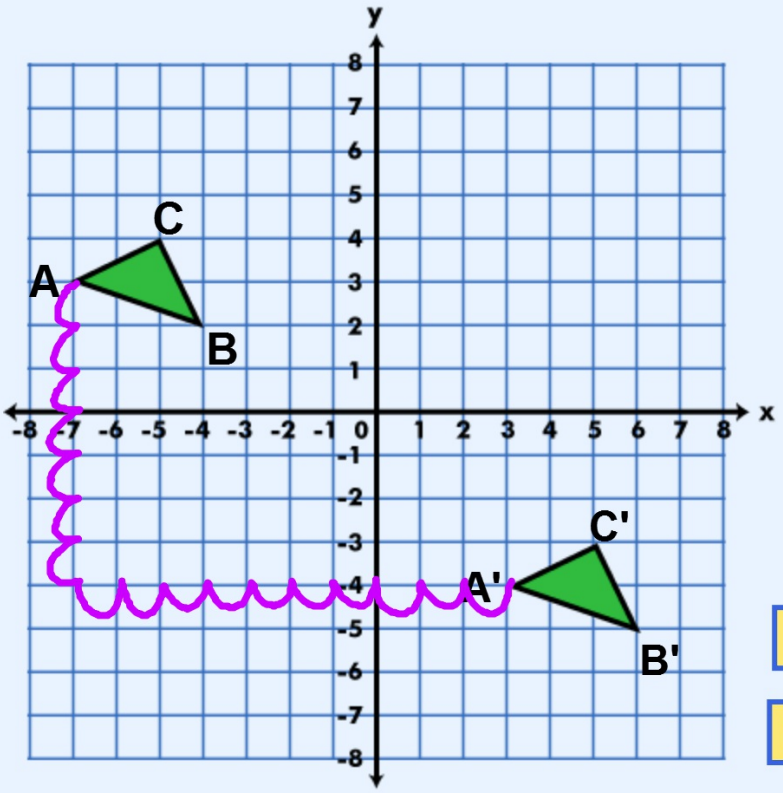




Describe This Transformation



Describe This Translation



ABC ⟶ A'B'C'

down 7

right 10

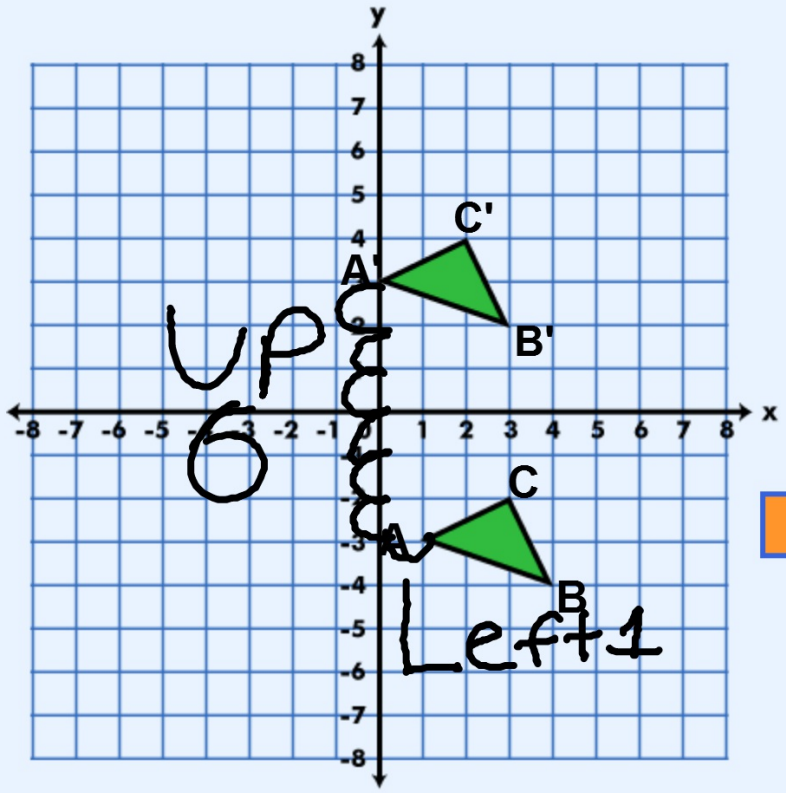
left up

1 2 3 4 5

6 8 9

CLONE

Describe This Translation



ABC ⟶ A'B'C'

left 1

up 6

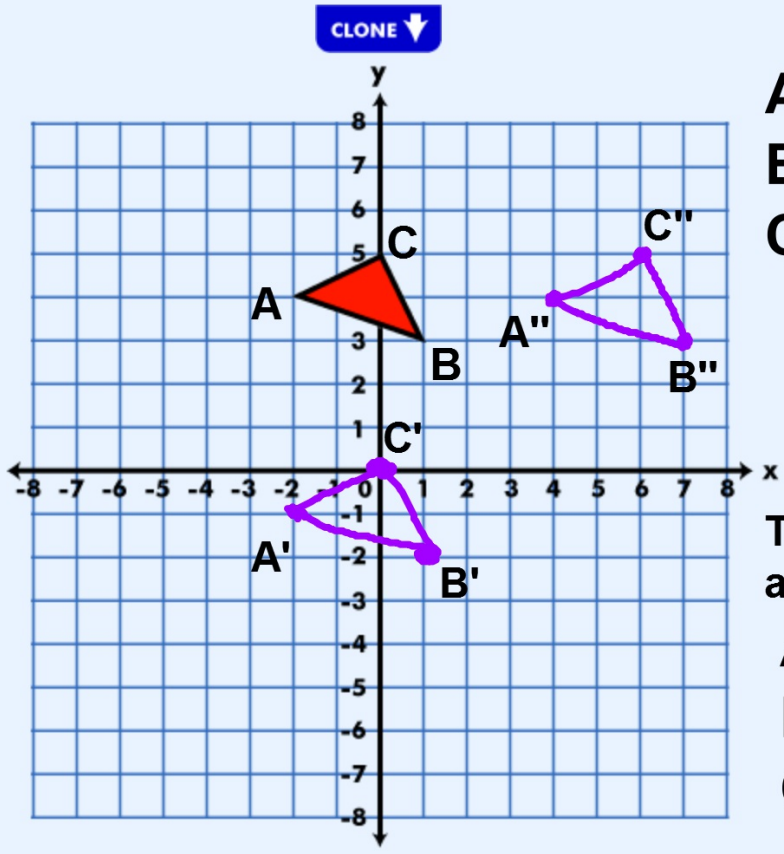
right down

2 3 4 5

7 8 9 10

CLONE

Translate ABC 5 units down and Label the image A'B'C'



A(-2,4) $\overset{-5}{\rightarrow}$ A'(-2,-1)

B(1,3) $\overset{-5}{\rightarrow}$ B'(1,-2)

C(0,5) $\overset{-5}{\rightarrow}$ C'(0,0)

DRAG

Translate ABC 6 units right and label the image A"B"C"

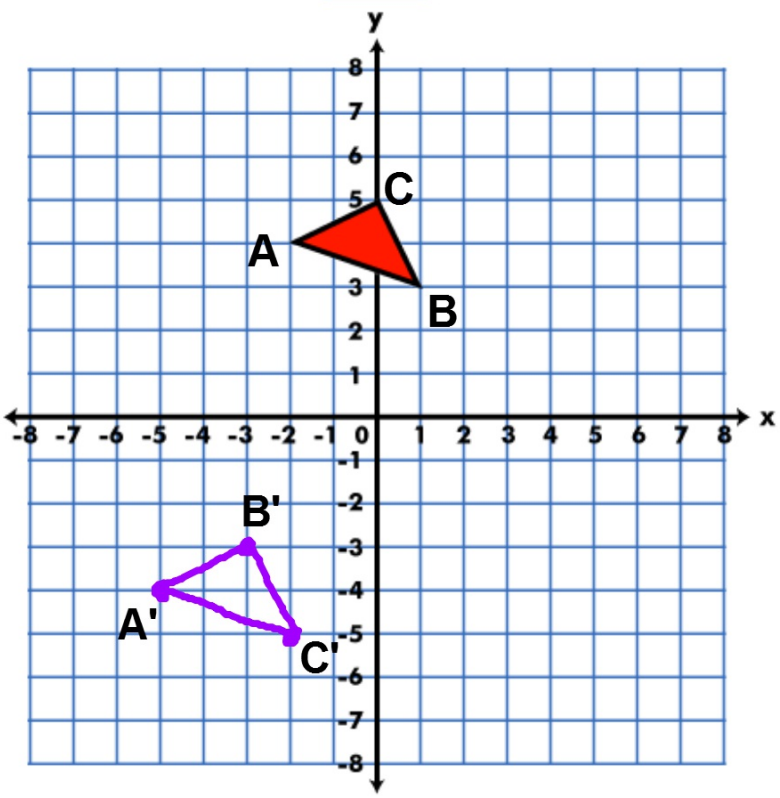
A(-2,4) $\overset{+6}{\rightarrow}$ A'(4,4)

B(1,3) $\overset{+6}{\rightarrow}$ B'(7,3)

C(0,5) $\overset{+6}{\rightarrow}$ C'(6,5)

Translate ABC 3 units left and 8 units down

CLONE



Label the image A'B'C'

DRAG

A(-2,4) A'(-5,-4)
-3 -8

B(1,3) B'(-2,-5)
-3 -8

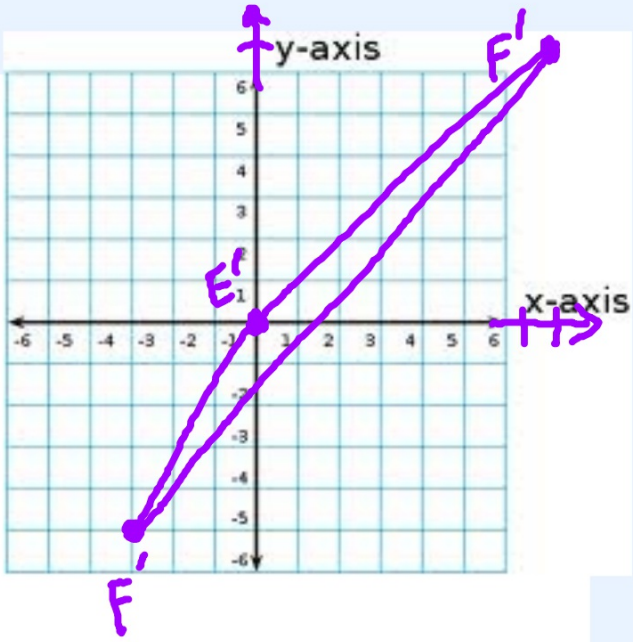
C(0,5) C'(-3,-3)
-3 -8

Write the ordered pair for each given translation

E (5,1)
5 units left, 1 unit down
-5 -1
E' (0,0)

F(2,-3)
6 units right, 10 units up
+6 +10
F' (8,7)

G(-5,4)
2 units right, 9 units down
+2 -9
G' (-3,-5)

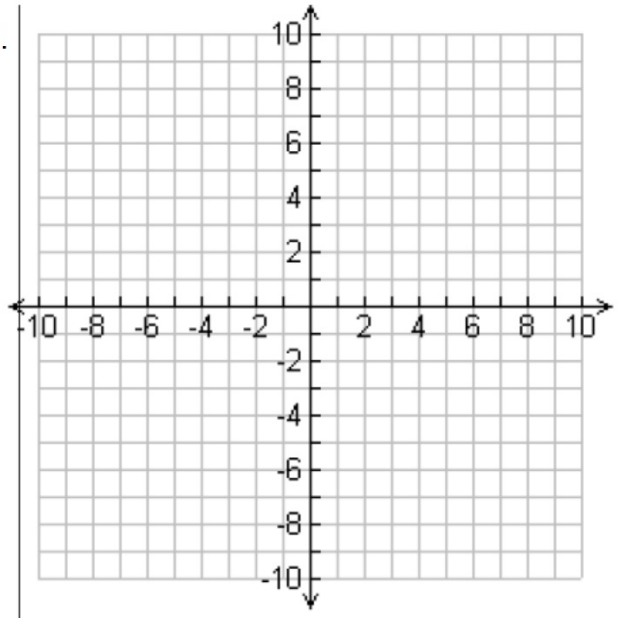


ANSWER

Kahoot!!

https://play.kahoot.it/#/k/3e335c92-7d7c-41fb-9932-65a594578df3
https://play.kahoot.it/#/k/daf5f04c-1ca2-4ab5-9acd-3f382e167576

Friday, February 26, 2016

1. 

Graph the equation:

$2x + y = -6$

2. *Solve:*

$8k - 4 - 3k - 17 = -21$

3. Simplify:

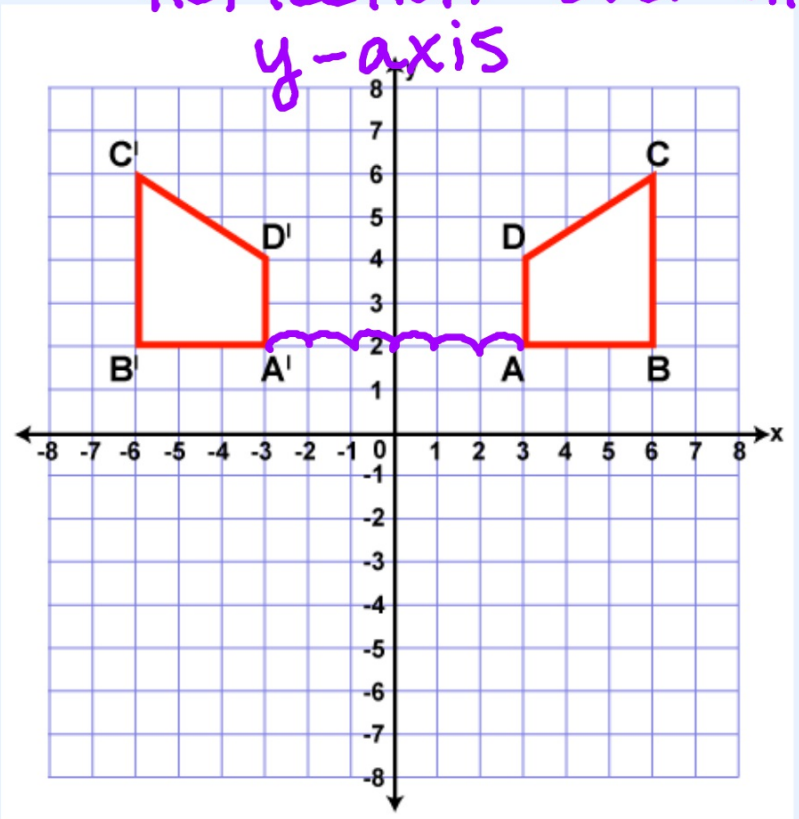
$6d - 4(3d + 5) + 3(d - 10)$

4. *A rectangle is 9 cm wide and 14 cm long. Find the length of a diagonal of the rectangle.*

Reflections

Describe This Transformation

Reflection over the y-axis



CLICK

Reflections

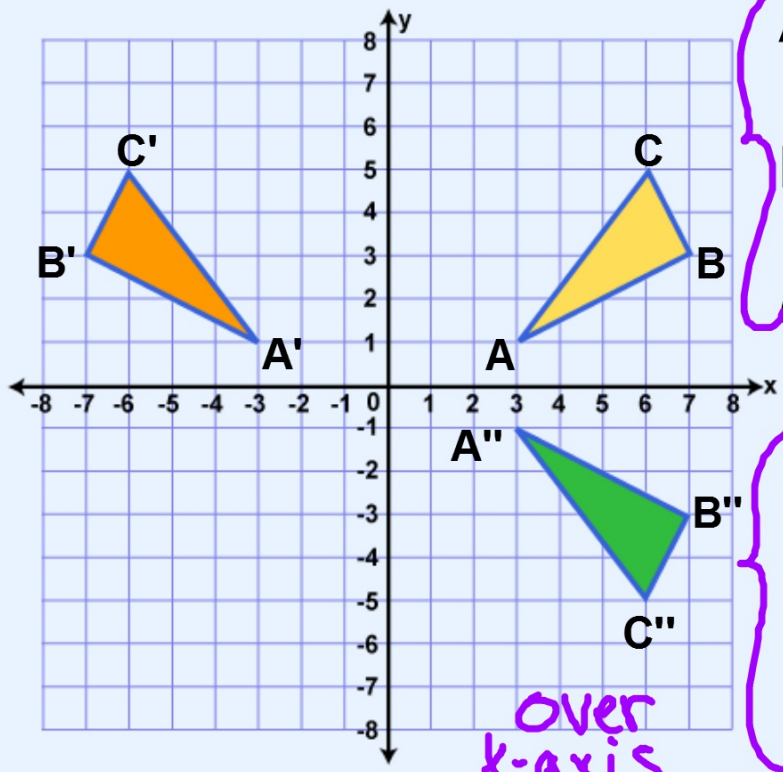
A reflection is a mirror image where the original figure (A, B, C, etc.) is FLIPPED over the x-axis or the y-axis to create a new image (A', B', C', etc.).

Reflections

**Count # of spots from axis
**Move that # to other side of axis

What do you notice?

ANSWER



over y-axis
x-coordinates are opposites

A(3,1) A'(-3, 1)

B(7,3) B'(-7, 3)

C(6,5) C'(-6, 5)

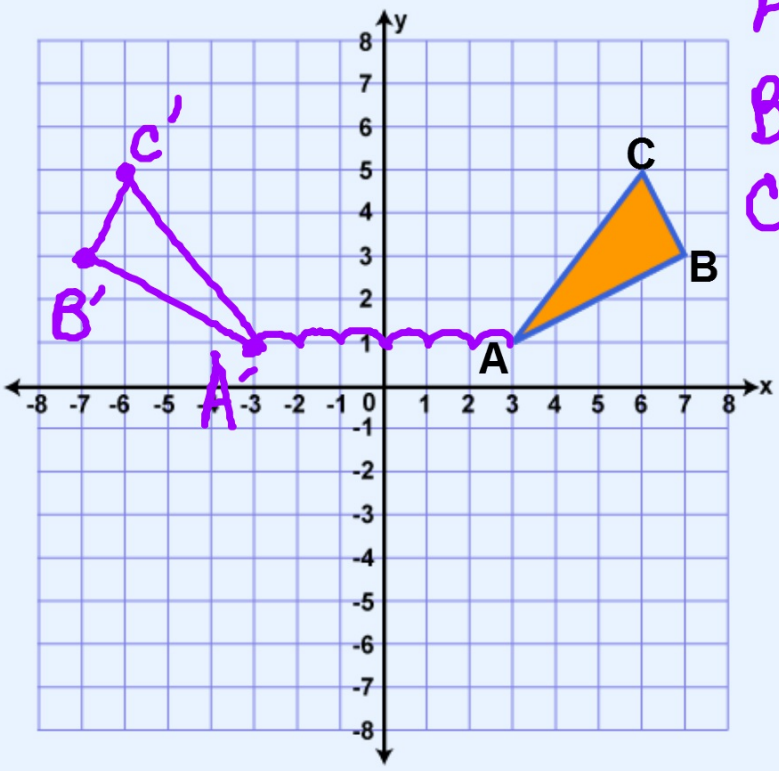
A(3,1) A''(3, -1)

B(7,3) B''(7, -3)

C(6,5) C''(6, -5)

over x-axis
y-coordinates are opposites

Reflect ABC across the y-axis



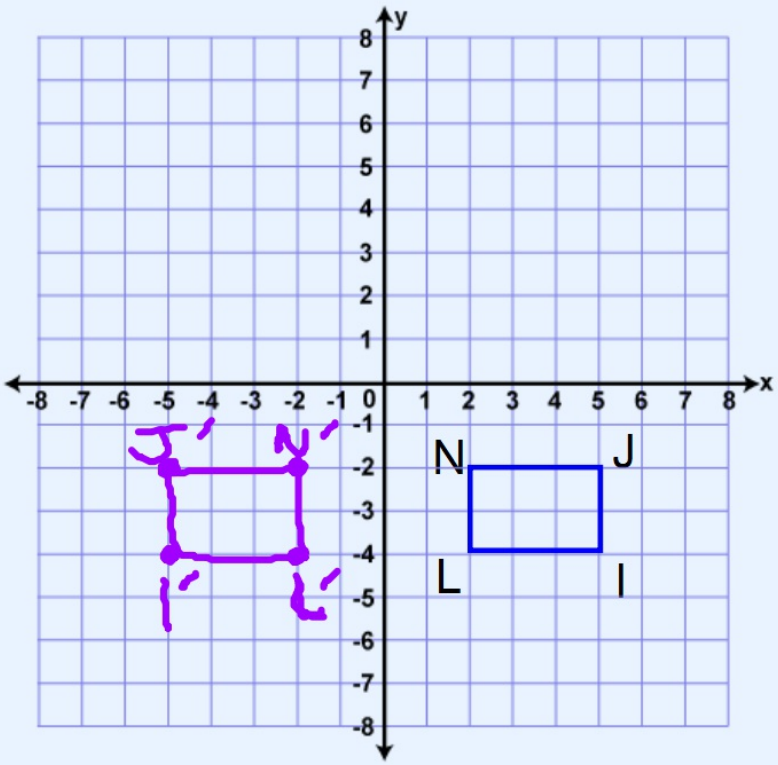
$A(3,1) \rightarrow A'(-3,1)$

$B(7,3) \rightarrow B'(-7,3)$

$C(6,5) \rightarrow C'(-6,5)$

A' B' C'

Reflect NJIL across the y-axis



Reflection Rules

If you reflect the original figure across the y-axis, change the sign of each x-value.

CLICK

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

If you reflect the original figure across the x-axis, change the sign of each y-value.

CLICK

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

CLICK

Match the line of reflection

DRAG

E(-5,6) → E'(5,6)	Reflection across the y-axis
C(7,3) → C'(7,-3)	Reflection across the x-axis
B(-3,1) → B'(-3,-1)	Reflection across the x-axis
A(2,2) → A'(-2,2)	Reflection across the y-axis

Homework: Complete the transformations worksheet and the Reflections Worksheet