Reflections Rotations Translations **Name**_____

Objective:

Do Now: a. Find the distance between the points (8, 3) and (-4,-5)

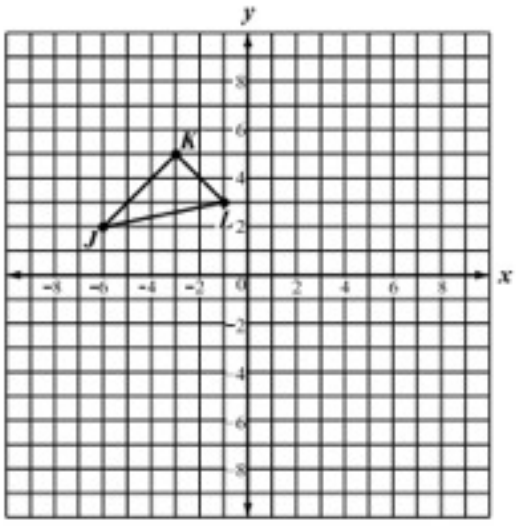
b. A triangle is formed by the points A (1, 3), B (7, -4) and C (0, 9). Find the lengths of the three sides of the triangle:

AB: BC: AC:

Guided Practice:
Transformations in the coordinate plane occur when _____

_____.

Find the coordinates of the triangle to the right:

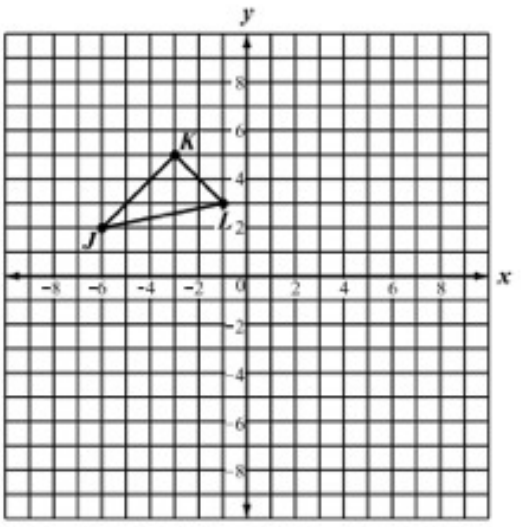


Reflections:

Example 1: Reflect the triangle over the x axis. What are its new coordinates?

Example 2: Reflect the triangle over the y axis. What are its new coordinates?

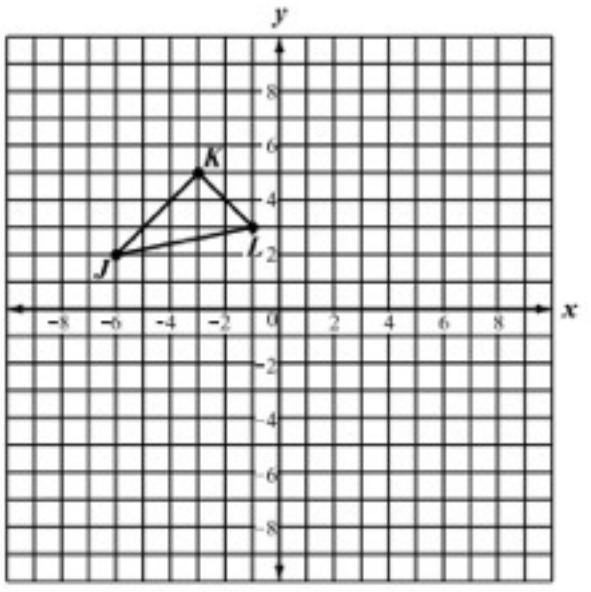
Rotations:



Example 1: Rotate the triangle 90 degrees clockwise.
What are its new coordinates?

Example 2: Rotate the triangle 90 degrees counterclockwise.
What are its new coordinates?

Translations:



Example 1: Shift the triangle 5 units to the right.
What are its new coordinates?

Example 2: Shift the triangle 6 units down.
What are its new coordinates?

Example 3: Shift the triangle 7 units right and 8 units down. What are its new coordinates?