

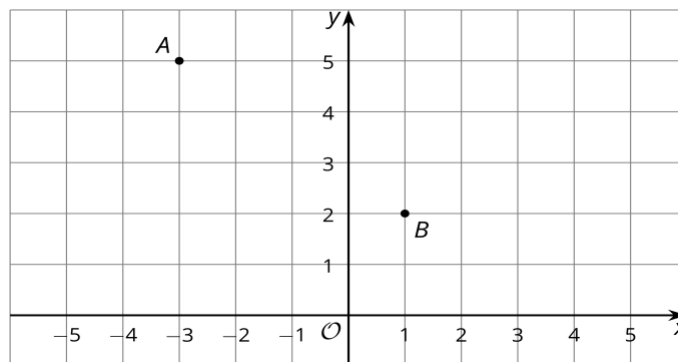
Name: _____ Period: _____

Classwork: Unit 6 Lesson 1

Lesson 1: Rigid Transformations in the Plane

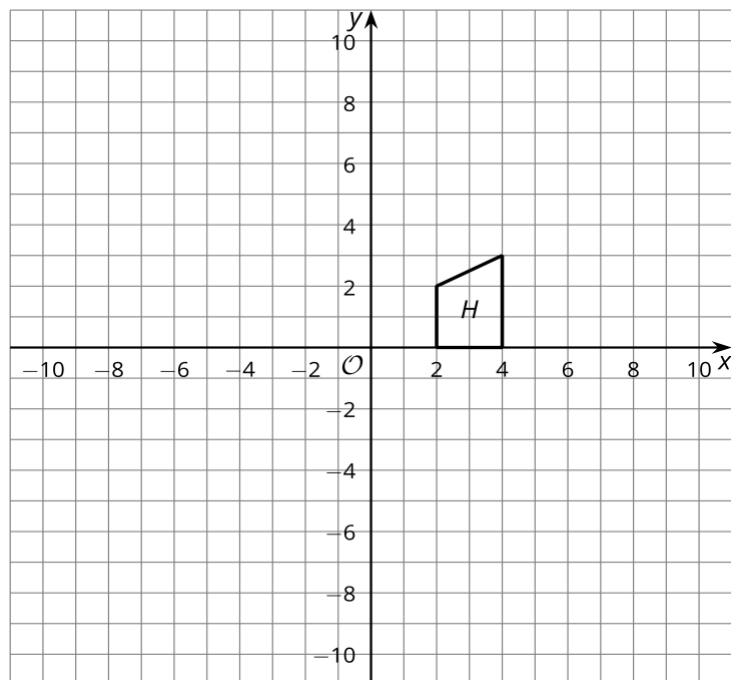
1.1: Traversing the Plane

- How far is point A from point B ?
- What transformations will take point A to point B ?



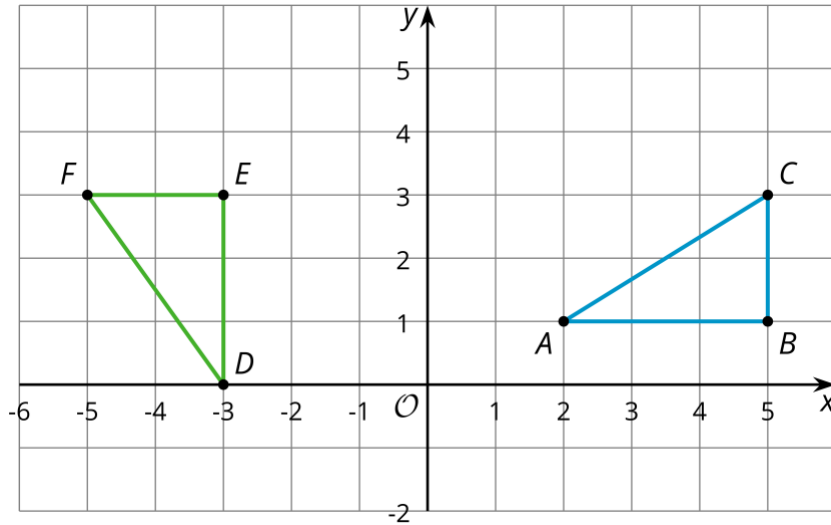
1.2: Transforming with Coordinates

First, predict where each transformation will land. Next, carry out the transformation.



- Rotate Figure H clockwise using center $(2,0)$ by 90 degrees.
Translate the image by the directed line segment from $(2,0)$ to $(3,-4)$.
Label the result R .
- Reflect Figure H across the y -axis.
Rotate the image counterclockwise using center $(0,0)$ by 90 degrees.
Label the result L .

1.3: Congruent by Coordinates



1. Calculate the length of each side in triangles ABC and DEF .
2. Calculate the measure of each angle in triangles ABC and DEF .
3. The triangles are congruent. How do you know this is true?
4. Because the triangles are congruent, there must be a sequence of rigid motions that takes one to the other. Find a sequence of rigid motions that takes triangle ABC to triangle DEF .