Name _____ Date _____ Class _____
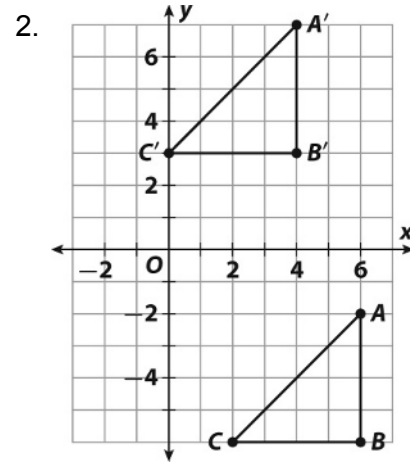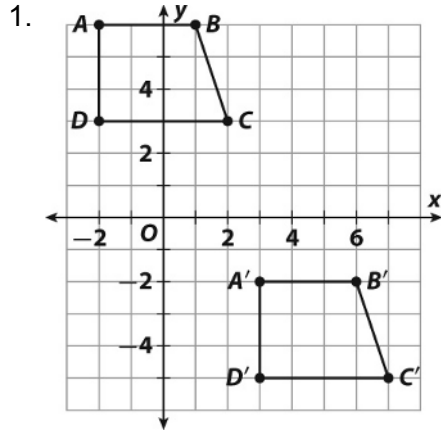
Properties of Translations

Practice and Problem Solving: A/B

Describe the translation that maps point *A* to point *A'*.
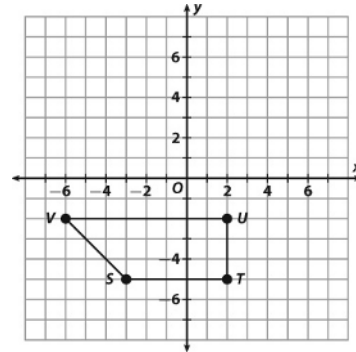
1.

2.

_____   _____

Draw the image of the figure after each translation.

3. 3 units left and 9 units down
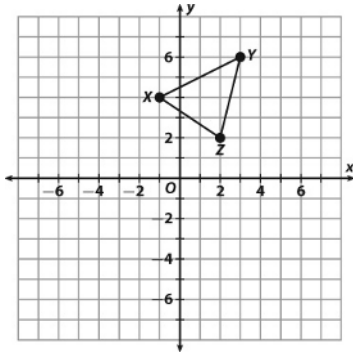
4. 3 units right and 6 units up

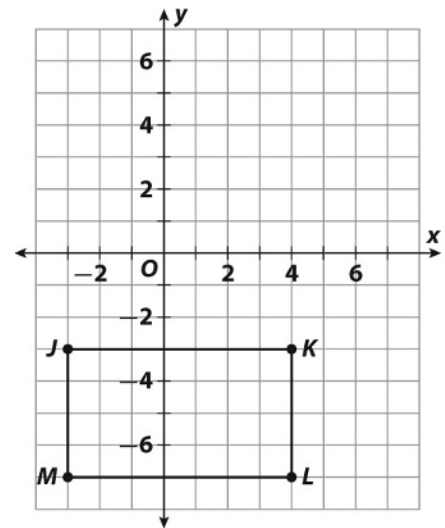5. a. Graph rectangle *J'K'L'M'*, the image of rectangle *JKLM,* after a translation of 1 unit right and 9 units up.

   b. Find the area of each rectangle.

   _____

   c. Is it possible for the area of a figure to change after it is translated? Explain.
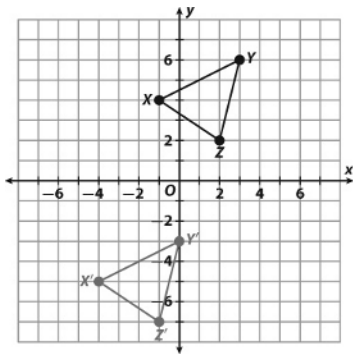
   _____

   _____

UNIT 4: Transformational Geometry

MODULE 9 Transformations and Congruence

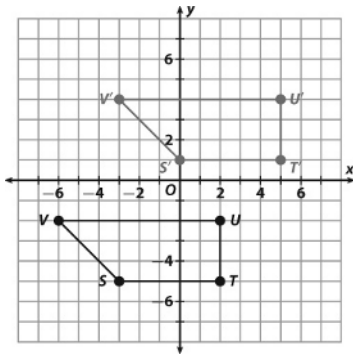### LESSON 9-1

Practice and Problem Solving: A/B

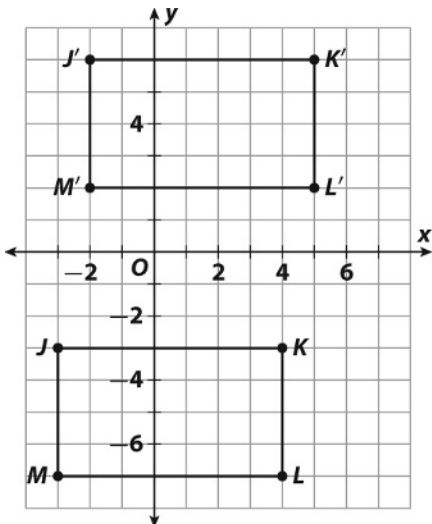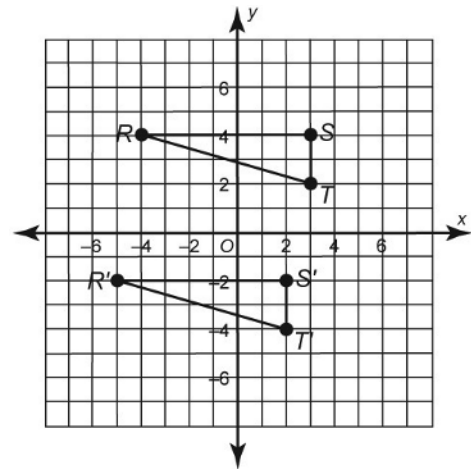1. 5 units right and 8 units down

2. 2 units left and 9 units up

3.

4.

5. a.

b. Area of *JKLM*= 28 square units, area of $J'K'L'M'$= 28 square units

c. No; the image and preimage are congruent, so they have the same size. This means that the areas are the same.

Practice and Problem Solving: C

1.

2.