

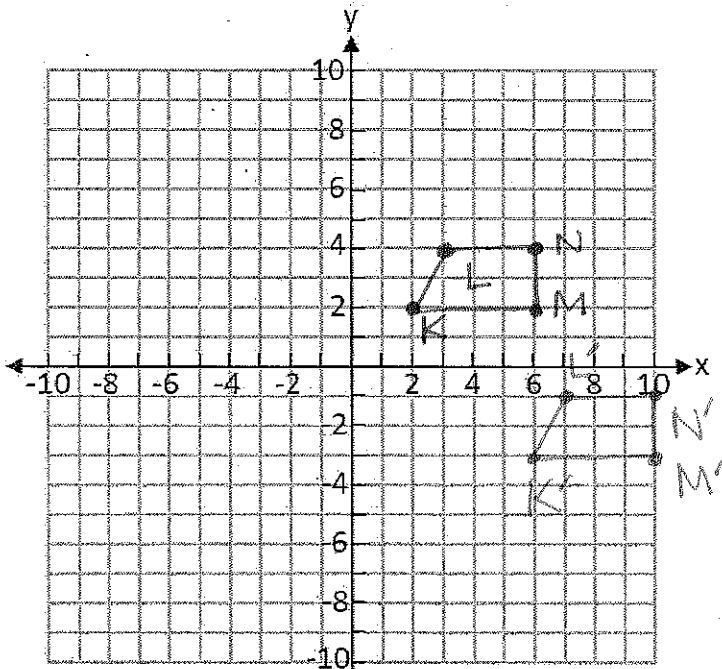
Name: key

Date: _____

Class: _____

Homework: Translations and Reflections L.2

1. Graph and connect these points $K(2,2)$, $L(3,4)$, $M(6,2)$, and $N(6,4)$.



Make sure you check out the intervals used.

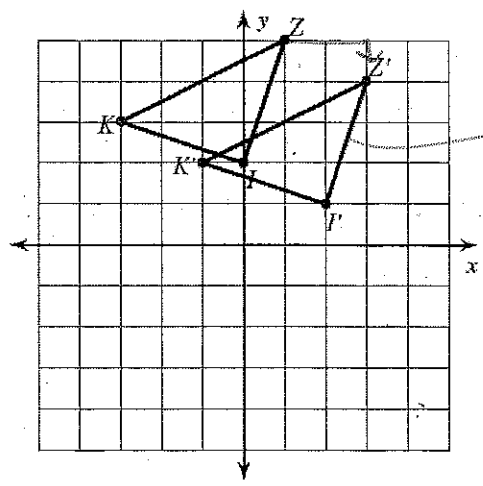


4 (right) 5 (down)

2. Translate the image 4 units horizontally and -5 units vertically. Label the new figure $K'L'M'N'$.
3. Using mathematical language, tell what you know is true about the figures after the translation.

Because translations do not change the measure of the corresponding angles or the length of the corresponding sides, the two figures are Congruent.

4. Write a rule for the translation.
 $(x+4, y-5)$
5. Describe the translation pictured below. Be sure to use mathematical language. Include details about direction and distance.



Notice these are prime.

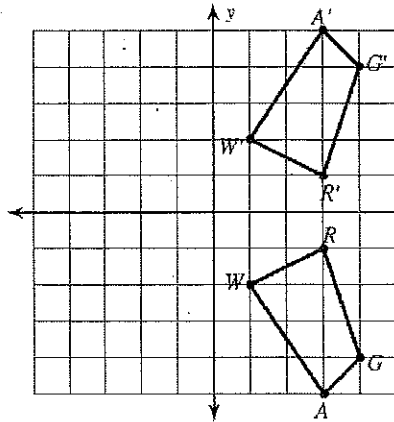
The original figure, $\triangle IKZ$ was translated 2 units horizontally & -1 unit vertically to form $\triangle I'K'Z'$.

The two figures are congruent.

Bonus \Rightarrow Rule: $(x+2, y-1)$

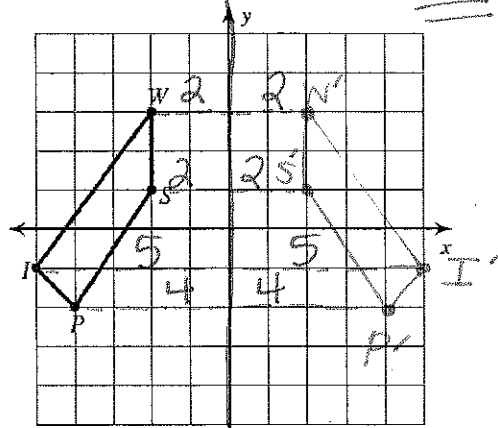
6. Fill in the blank: When translating a figure, you Slide each of the points in the figure in the same distance and direction. Because the corresponding angles and side lengths are equal, the two figures would be congruent.

7. Identify the line of reflection in the picture below.



→ the x axis is the line of reflection

8. Reflect the image below across the y axis. Be sure to label the new points using prime notation. ✓

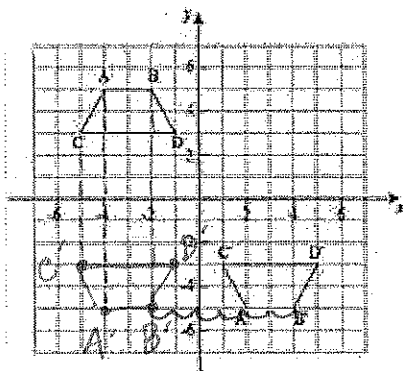


9. Which of the following is NOT true?

- ✓ A. The images are congruent.
- ✓ B. \overline{PS} has the same length as $\overline{P'S'}$
- ✓ C. $\angle W$ is congruent to $\angle W'$
- ✗ D. The x axis is the line of reflection

line of reflection

10. Using mathematical language, describe the sequence of transformation that took place in the picture below. Hint: Be sure to tell what type(s) of transformation took place. For translations, include distance and direction. For reflections, identify the line of reflection. Are the figures congruent?



Hint: Look at one pair of corresponding points first!

The figure ABCD was reflected over the x axis.

Then, it was translated horizontally 6 units to form figure A''B''C''D''

Yes, both translations & reflections lead to congruent figures, so ABCD is congruent to A''B''C''D''