Name _____ Class _____ Date _____

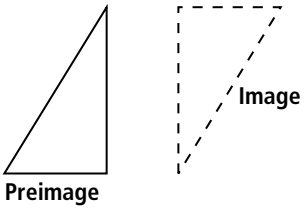
Practice

Form K

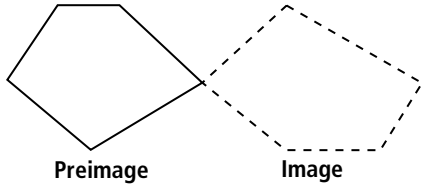
Translations

Tell whether the transformation appears to be a rigid motion. Explain.

1.

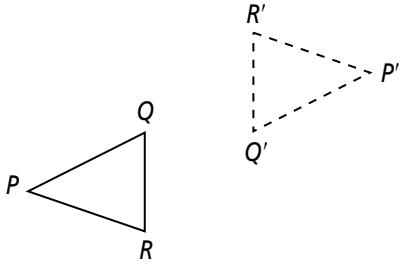


2.

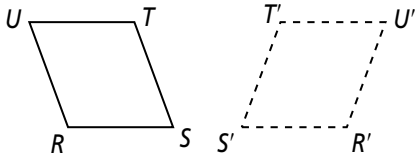


In each diagram, the dashed-line figure is an image of the solid-line figure.
(a) Choose an angle or point from the preimage and name its image.
(b) List all pairs of corresponding sides.

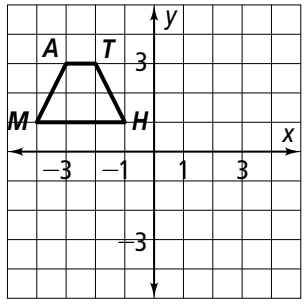
3.



4.



Copy each graph. Graph the image of each figure under the given translation.



5. $T_{<3, -4>}(MATH)$

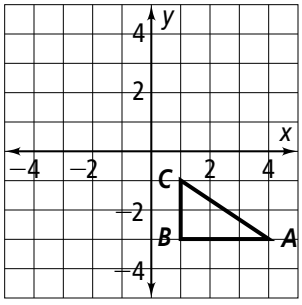
Describe in words the translation to the right 3 units and down 4 units.

To start, identify the coordinates of each vertex.

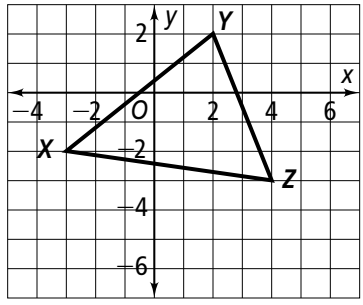
The vertices are:

$M(\square, 1)$, $A(\square, 3)$, $T(-2, \square)$, and $H(-1, \square)$.

6. $T_{<-2, 3>}(\triangle ABC)$



7. $T_{<2, -3>}(\triangle XYZ)$



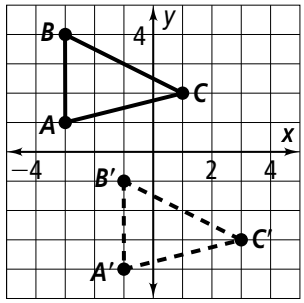
Name _____ Class _____ Date _____

Practice (continued) *Form K*

Translations

The dashed-line figure is a translation image of the solid-line figure. Write a rule to describe each translation.

8. To start, identify the coordinates of the vertices of both figures.



The vertices of the preimage are:

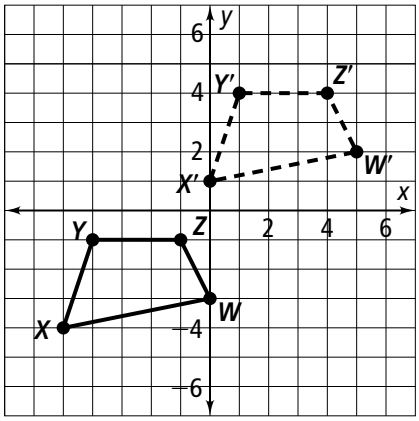
$A(-3, \square)$, $B(-3, \square)$, and $C(1, \square)$.

The vertices of the image are:

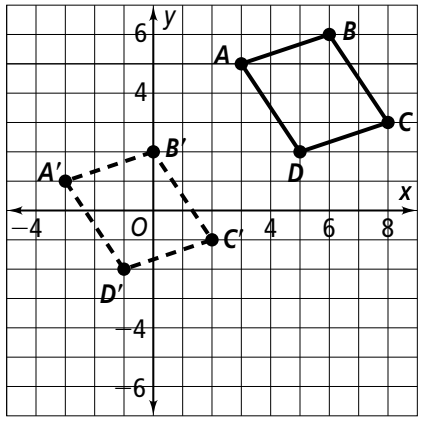
$A'(\square, -4)$, $B'(\square, -1)$, and $C'(3, \square)$.

The translation rule is ___?___.

9.



10.



11. You and your friends are visiting a city with blocks laid out in a grid. You walk 7 blocks north and 3 blocks west to a restaurant. After you eat, you then walk 10 blocks east and 3 blocks south to meet up with a friend. Describe your final location based on your starting point.

12. $\triangle ABC$ has coordinates $A(2, 3)$, $B(4, -2)$, and $C(3, 0)$. After a translation the coordinates of A' are $(6, -1)$. What are the coordinates of B' and C'?

13. Use the graph to the right. Write three different translation rules for which the image of $\triangle RST$ has a vertex at the origin.