Warm Up

What does the following rule describe?

$$(x, y) \longrightarrow (x - 6, y + 2)$$

6 left 2 units up

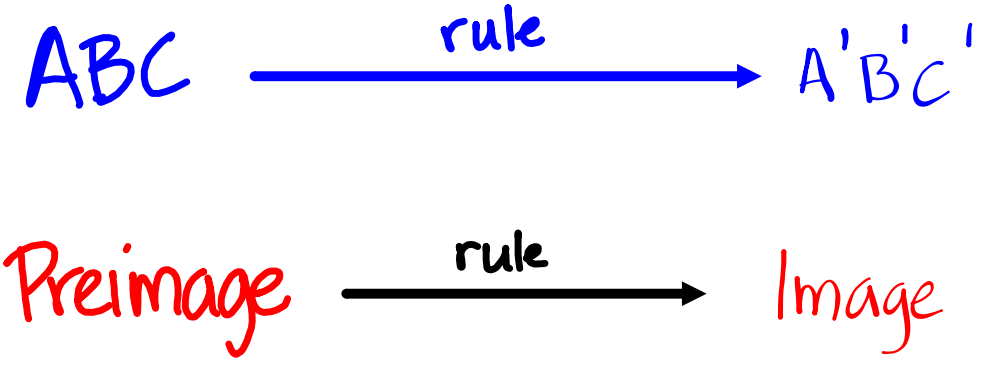
If this rule were applied to a figure, would the image be

SIMILAR or CONGRUENT

to the pre-image?

Quick Recap

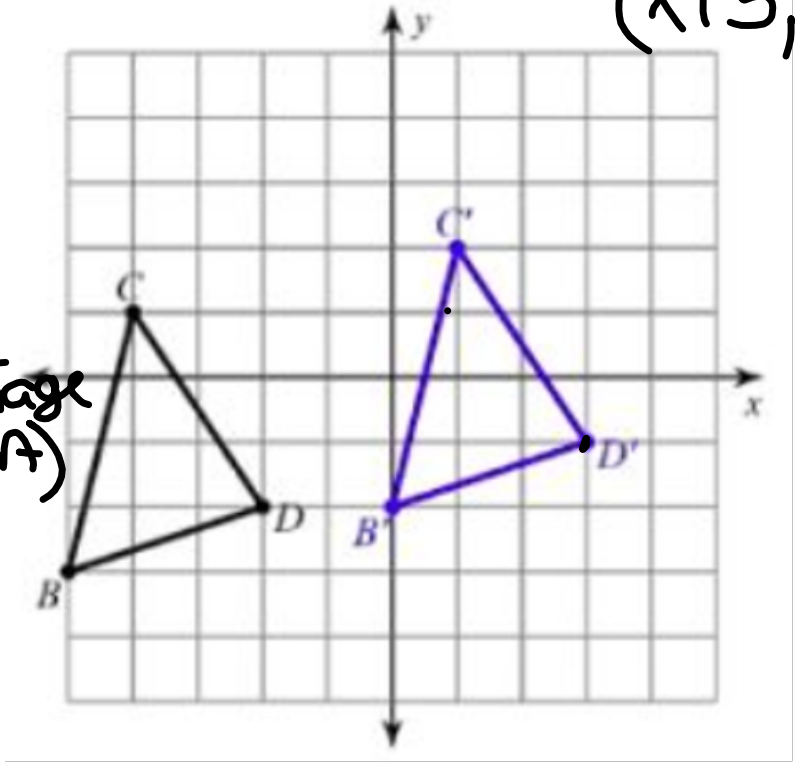
Translations



Example #3

Write the translation that must have occurred.

$(x+5, y+1)$

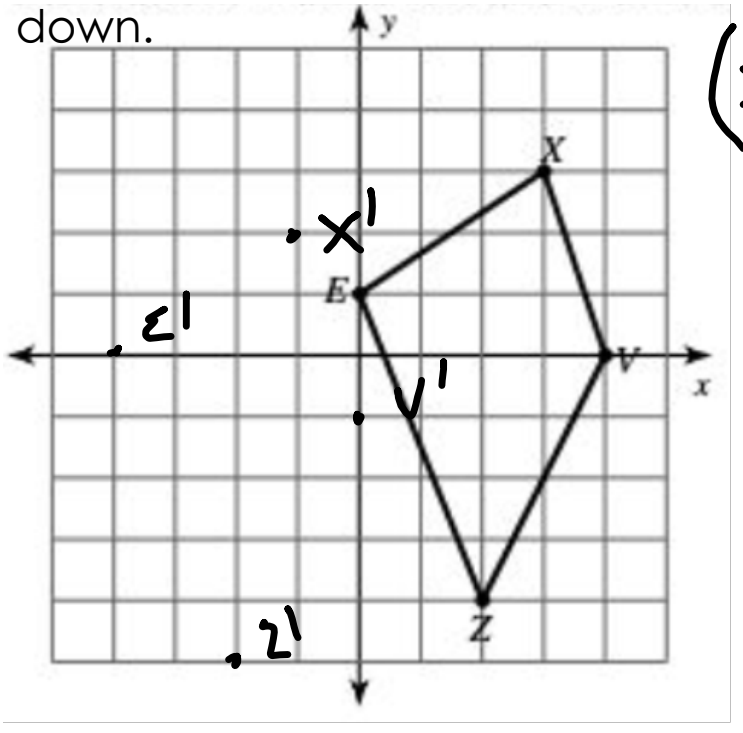


pre image (start)

Example #4

Perform the translation and write the rule in arrow notation.

Translate 4 units left and 1 unit down.



$(x-4, y-1)$

Classwork

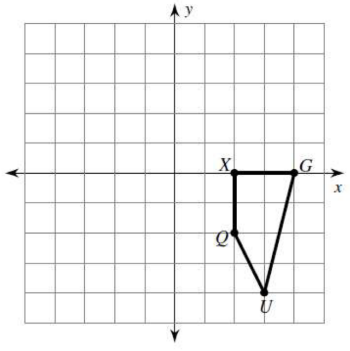
Kuta Software - Infinite Pre- ame_____

Translations of Shapes

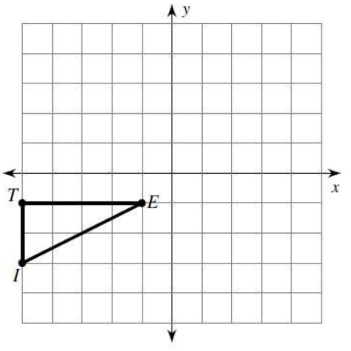
Date_____ Period____

Graph the image of the figure using the transformation given.

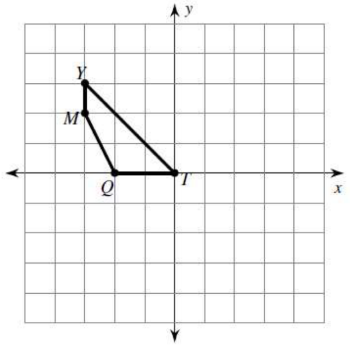
1) translation: 1 unit left



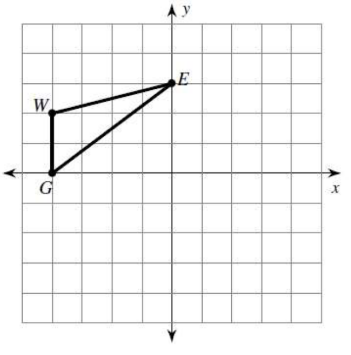
2) translation: 1 unit right and 2 units down



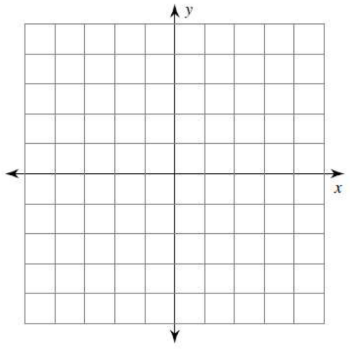
3) translation: 3 units right



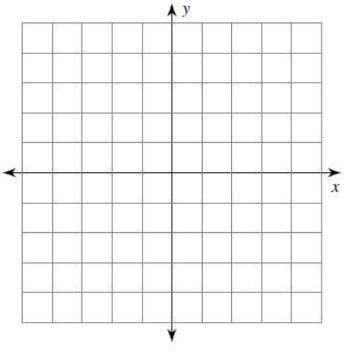
4) translation: 1 unit right and 2 units down



5) translation: 5 units up
$U(-3, -4)$, $M(-1, -1)$, $L(-2, -5)$



6) translation: 3 units up
$R(-4, -3)$, $D(-4, 0)$, $L(0, 0)$, $F(0, -3)$



Find the coordinates of the vertices of each figure after the given transformation.

7) translation: 2 units left and 1 unit down
$Q(0, -1)$, $D(-2, 2)$, $V(2, 4)$, $J(3, 0)$

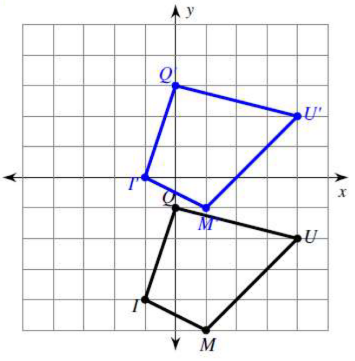
8) translation: 2 units down
$D(-4, 1)$, $A(-2, 5)$, $S(-1, 4)$, $N(-1, 2)$

9) translation: 4 units left and 4 units up
$J(-1, -2)$, $A(-1, 0)$, $N(3, -3)$

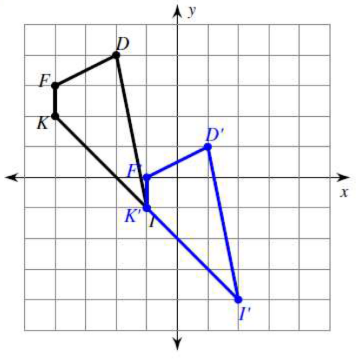
10) translation: 3 units right and 4 units up
$Z(-4, -3)$, $I(-2, -2)$, $V(-2, -4)$

Write a rule to describe each transformation.

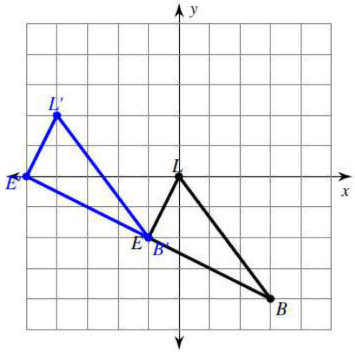
11)



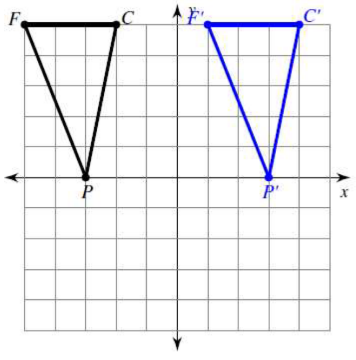
12)



13)



14)



Homework

Finish classwork