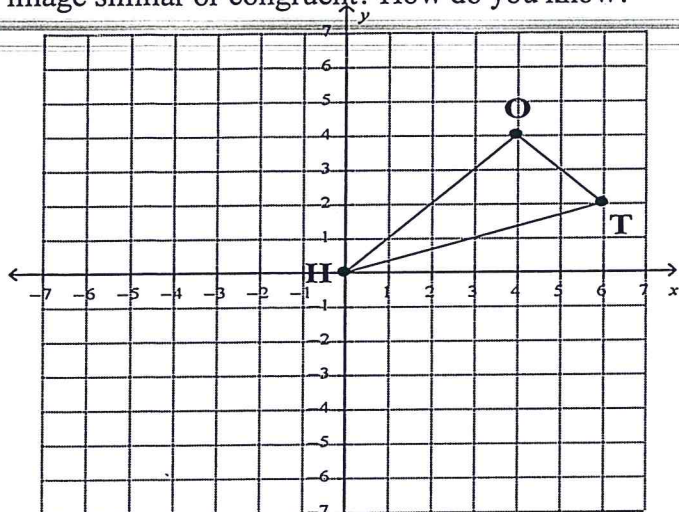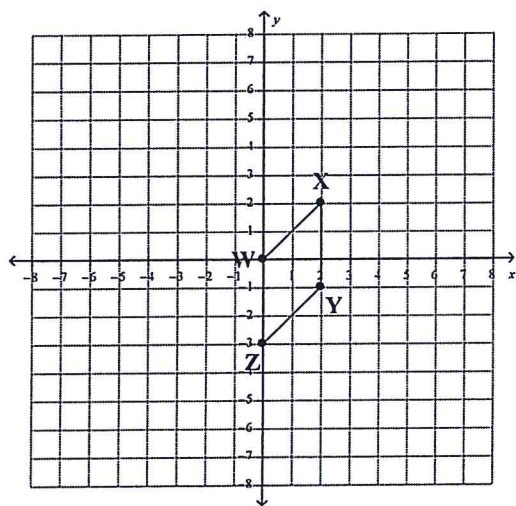## Classwork/Homework/More Practice/Graded Work
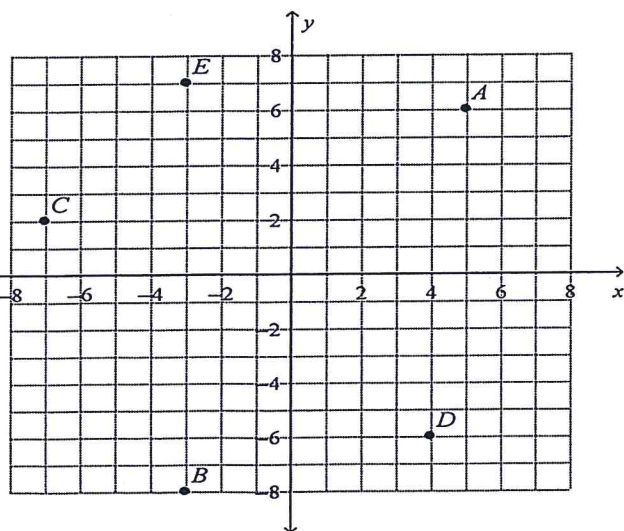
1. Draw the translation of the triangle *HOT* six units left and one unit down. Label the image *H'O'T'*. Is the image similar or congruent? How do you know?

2. Find the translation of the quadrilateral *WXYZ* under the rule $(x, y) \rightarrow (x - 2, y + 4)$.


Use the grid below to answer questions 3 through 5.

3. Find the rule to describe the translation from point *A* to point *B*.

4. Find the rule to describe the translation from point *C* to point *D*.

5. Find the rule to describe the translation from point *E* to point *A*.

4

6. Quadrilateral *PQRS* is plotted on the grid below.
On the graph, draw the translation of polygon *PQRS* three units to the left and four units down. Label the image *P'Q'R'S'*. Now create polygon *P"Q"R"S"* by translating polygon *P'Q'R'S'* using the rule $(x, y) \rightarrow (x+2, y+1)$. What will be the coordinates of point *Q"? Answer* _____ On the lines below, write a single translation rule from polygon *PQRS* to polygon *P"Q"R"S"*.

_____
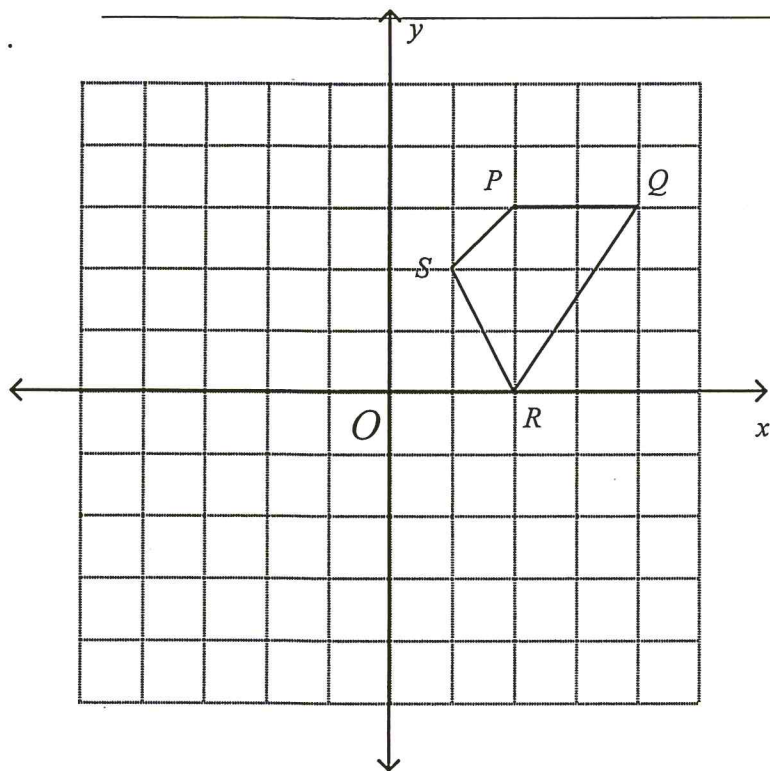
7.

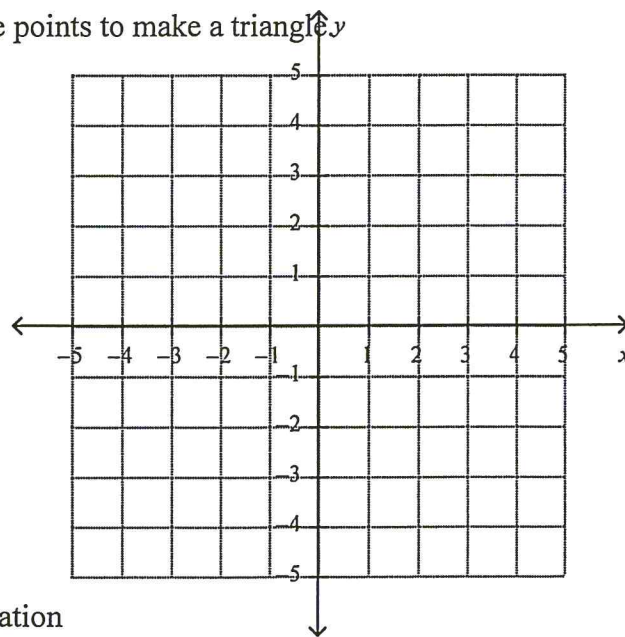a) Graph points *T*(0,3), *U*(2, 4) and *V*(5, -1) and connect the points to make a triangle.

b) Translate Δ*TUV* using the rule $(x, y) \rightarrow (x - 3, y - 1)$.

c) In words, describe what the rule is asking you to do.

_____

d) Draw the image Δ*T'U'V'*.

e) Identify the coordinates of Δ*T'U'V'*.

*T'*_____ *U'*_____ *V'*_____

f) Using the image of Δ*T'U'V'* perform an additional translation using the rule $(x, y) \rightarrow (x + 3, y - 3)$. State the new coordinates of Δ*T"U"V"*.
Is this new image congruent or similar to the original figure?_____