Section 2.1: Translations Name: _____

In Class Notes

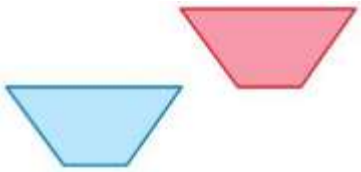
A _____ changes a figure into another figure.

The original figure is called the _____, the new figure is called the _____.

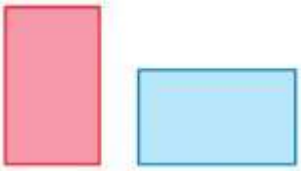
A _____ is a transformation in which a figure slides, but doesn't _____.

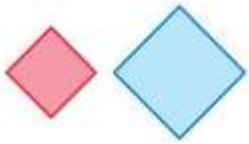
Every _____ in the figure moves the same _____ and in the same _____.

Ex:) Tell whether the blue figure is a translation of the red figure.

a) 

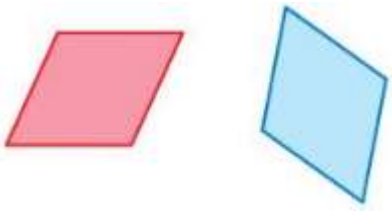
Notes:

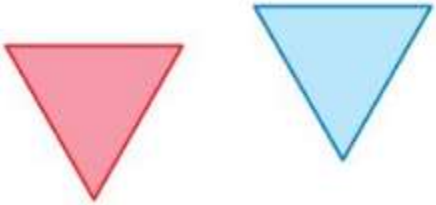
b) 

c) 

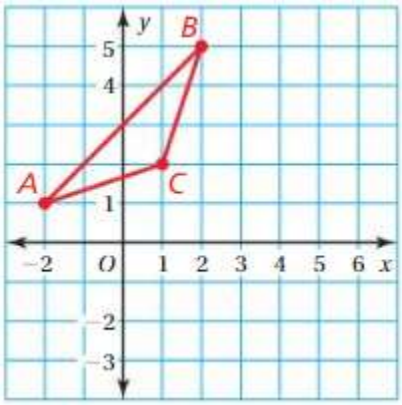
OYO:) Tell whether the blue figure is a translation of the red figure.

Notes:

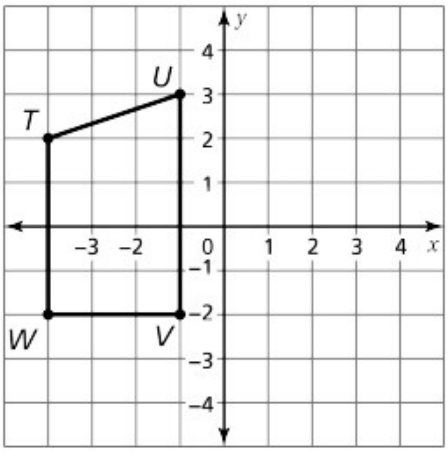
a) 

b) 

Ex:) Translate the red triangle 3 units right and 3 units down. Notes:
What are the coordinates of the image?



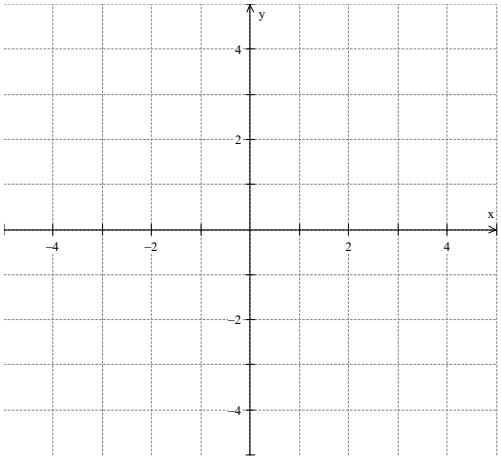
OYO:) Translate the figure 4 units right and 1 unit up. Notes:
What are the coordinates of the image?



Ex:) The vertices of a triangle are A(6, 5), B(6, 3), and C(2, 3). The triangle is translated 2 units right and 5 units down. What are the coordinates of the image?

OYO:) The vertices of a triangle are A(-2, -2), B(0, 2), and C(3, 0). Translate the triangle 1 unit left and 2 units up.
What are the coordinates of the image?

Ex:) A landscaper represents a park using a coordinate plane. He draws a square with vertices A(1, -2), B(3, -2), C(3, -4), and D(1, -4) to represent the location of a new fountain. City officials want to move the fountain 4 units left and 6 units up. Find the coordinates of the image. Then draw the original figure and the image in a coordinate plane.



OYO:) A neighborhood planner uses a coordinate plane to design a new neighborhood. The coordinates A(1, -1), B(1, -2), and C(2, -1) represent House A, House B, and House C. The planner decides to place a playground centered at the origin, and moves the houses to make space. House A is now located at $A'(3, -4)$. What are the new coordinates of House B and House C when each house is moved using the same translation? Justify your answer.