

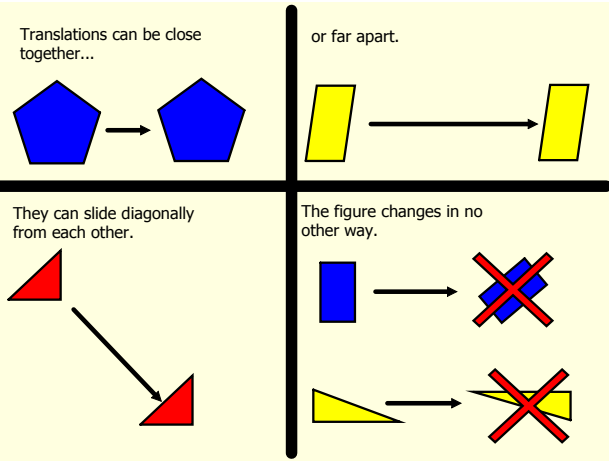
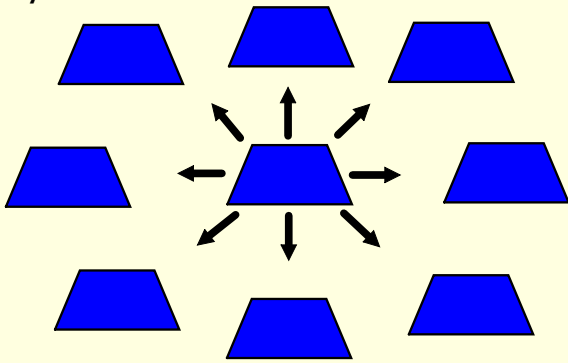
Translations

A translation is when a figure or point is moved to a new position in a coordinate plane.

There are four types:

- **TRANSLATION** (Slide)
- **ROTATION** (Turn)
- **REFLECTION** (Flip)
- **DILATION** (Enlarge or Reduce)

Translation- when a figure is slid in any direction



Translations On A Graph

From each point, conduct the move requested and then draw your new image.

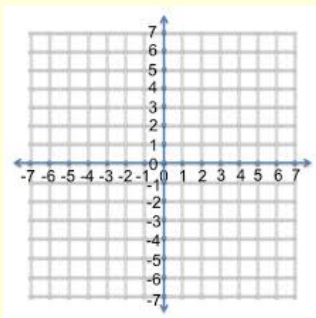
Example: Plot points A(-2, 3), B(-6, 3), and C(-2, 7). Translate the figure 8 units right and 5 units down.

STEP 1: Plot original points

STEP 2: From each original point move 8 units right and 5 units down.

STEP 3: Connect the new points. This is your image and the points are the "prime" points.

STEP 4: Now list the location of the new points as your "primes".



Translate ABC 3 units left and 8 units down

CLONE ↓

Label the image A'B'C'

A(-2,4) A'(__, __)

B(1,3) B'(__, __)

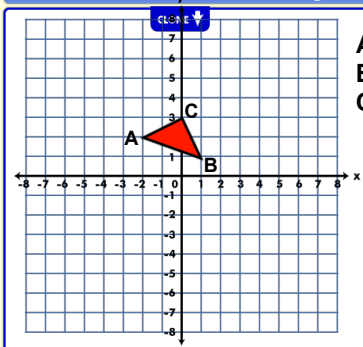
C(0,5) C'(__, __)

ANSWER

DRAW

SUMMARY

Translate ABC 5 units down and 6 units right and label the image A'B'C'



A(-2,4) A'(__, __)
 B(1,3) B'(__, __)
 C(0,5) C'(__, __)

Translations With Ordered Pairs

A right/left move will affect the x coordinate and an up/down move will affect the y coordinate. You can just do the arithmetic to each part of the ordered pair (coordinates).

Example: Plot points A(-2, 3), B(-6, 3), and C(-2, 7). If the figure is translated 8 units right and 5 units down, name the prime points.

The 8 units right will add 8 to the x number in the coordinate set and the 5 units down will subtract 5 from the y

	x	y	
A(-2,3)	-2	3	A'(6, -2)
	_____	_____	
B(-6,3)	-6	3	B'(2, -2)
	_____	_____	
C(-2,7)	-2	7	C'(6, 2)
	_____	_____	

Write the ordered pair for each given translation

E (5,1)
 5 units left, 1 unit down
 E' (__, __)

F(2,-3)
 6 units right, 10 units up
 F' (__, __)

G(-5,4)
 2 units right, 9 units down
 G' (__, __)

ANSWER

Describe this translation

CLONE

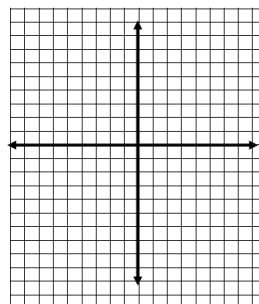
Describe this translation

CLONE

Slide the triangle 5 units left and 3 units up

A (3, 7) → A' (,)
 B (3, 2) → B' (,)
 C (7, 2) → C' (,)

(x _____, y _____)



Plot the coordinates given for each pre-image. Translate the figure as instructed. Draw the image on the coordinate plane. List the coordinates of the new image. Describe what happened to both the x and y