**1)** a) Use arrow notation to write a rule for the given translation.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b) Graph and label the image after the translation.

c) Name the coordinates of the image.

A’ \_\_\_\_\_\_\_\_\_\_\_\_\_ B’ \_\_\_\_\_\_\_\_\_\_\_\_\_

C’ \_\_\_\_\_\_\_\_\_\_\_\_\_ D’ \_\_\_\_\_\_\_\_\_\_\_\_

In questions 3 and 4 below, use arrow notation to write a rule that describes the translation shown on the graph.

**3)** **4)**

4) Δ*ABC* is reflected over the *y*-axis.

Draw the image Δ*A’B’C’*.

What are the coordinates of:

*A* \_\_\_\_\_\_\_\_ 🡪 *A’* \_\_\_\_\_\_\_\_\_

*B* \_\_\_\_\_\_\_\_ 🡪 *B’* \_\_\_\_\_\_\_\_\_

*C* \_\_\_\_\_\_\_\_ 🡪 *C’* \_\_\_\_\_\_\_\_\_\_

Write a general rule for a *y-*axis reflection:

(*x, y*) 🡪 ( \_\_\_\_\_\_\_\_ , \_\_\_\_\_\_\_ ).

****5) Draw the line of reflection which caused rectangle *KLMN* to reflect onto rectangle *K’L’M’N’*. What is the equation of the line of reflection?



6) Draw the line of reflection which caused triangle *ABC* to reflect onto triangle *A’B’C’*. What is the equation of the line of reflection?

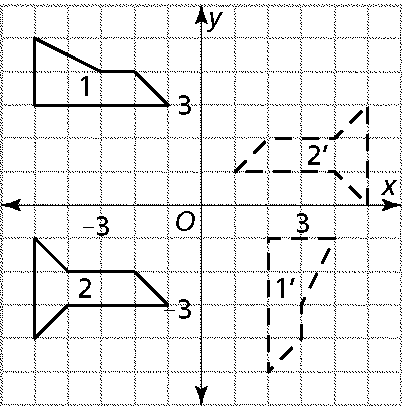
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7) Quadrilateral *CDEF* is plotted on the grid below.

On the graph, draw the reflection of polygon *CDEF* over the *x-*axis. Label the image *C’D’E’F’*.

Now create polygon *C”D”E”F”* by translating polygon *C’D’E’F’* three units to the left and up two units. What will be the coordinates of point *C”*?

***Answer \_\_\_\_\_\_\_\_\_\_\_\_\_\_***

8)Describe how you could move shape 2 to exactly match shape 2’ by using one translation and one reflection.