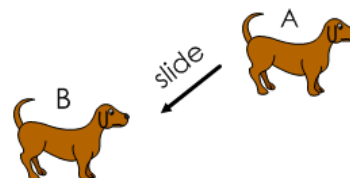


## **2.3 – Translations Activity**

### **Activity 1 - Review**

1) Which figure is the image - A or B? Why?



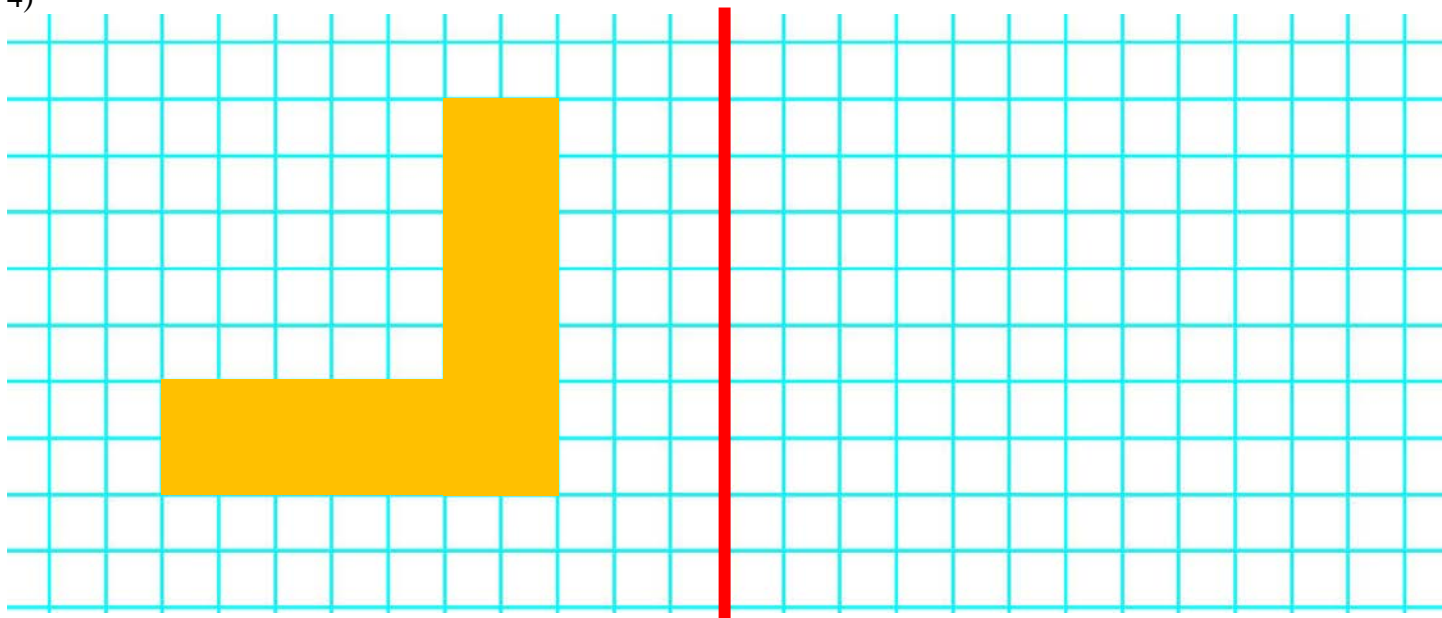
2) How do you translate a figure in a coordinate plane?

3) Can you translate the letters in the word TOKYO to form the word KYOTO? Explain.

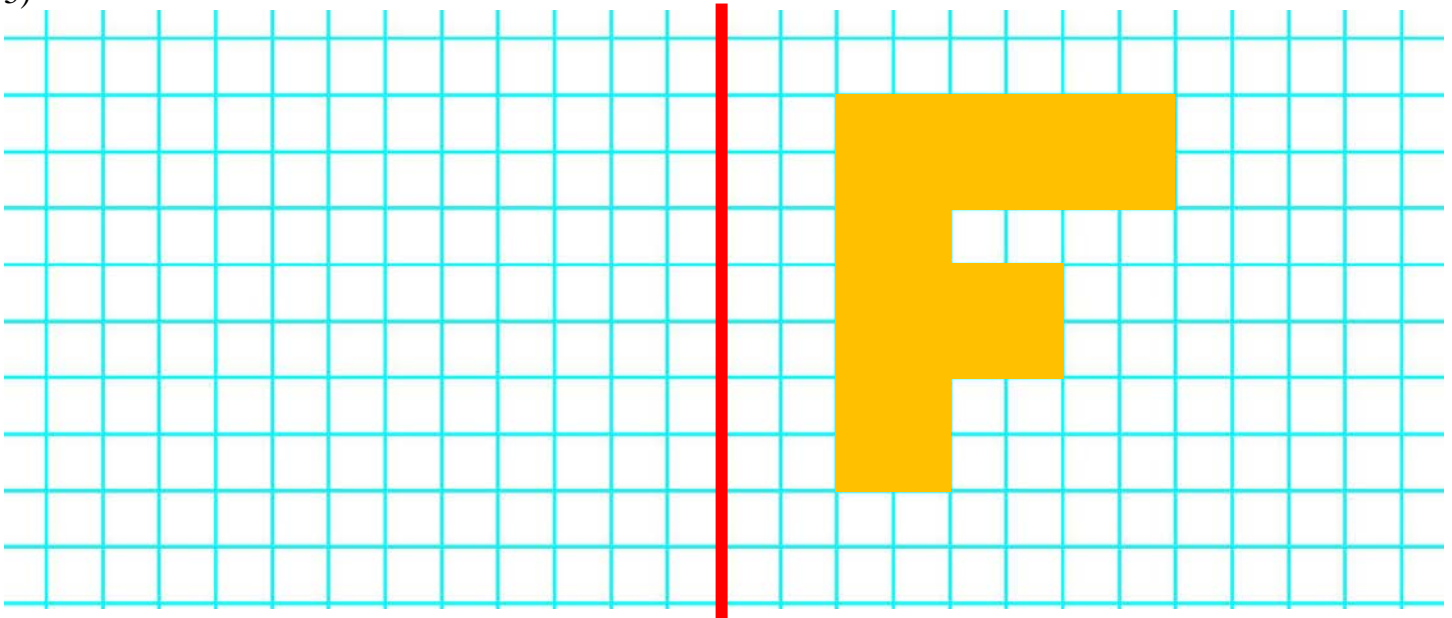
### **Activity 2 - Drawing Mirror Images (Reflections)**

Try to draw the mirror image of the figure across the given line.

4)



5)



### Activity 3 - Translating in the Coordinate Plane

- a) Draw rectangle ABCD in Quadrant 1 in the coordinate plane. Find the dimensions of the rectangle.

Length: \_\_\_\_\_

Width: \_\_\_\_\_

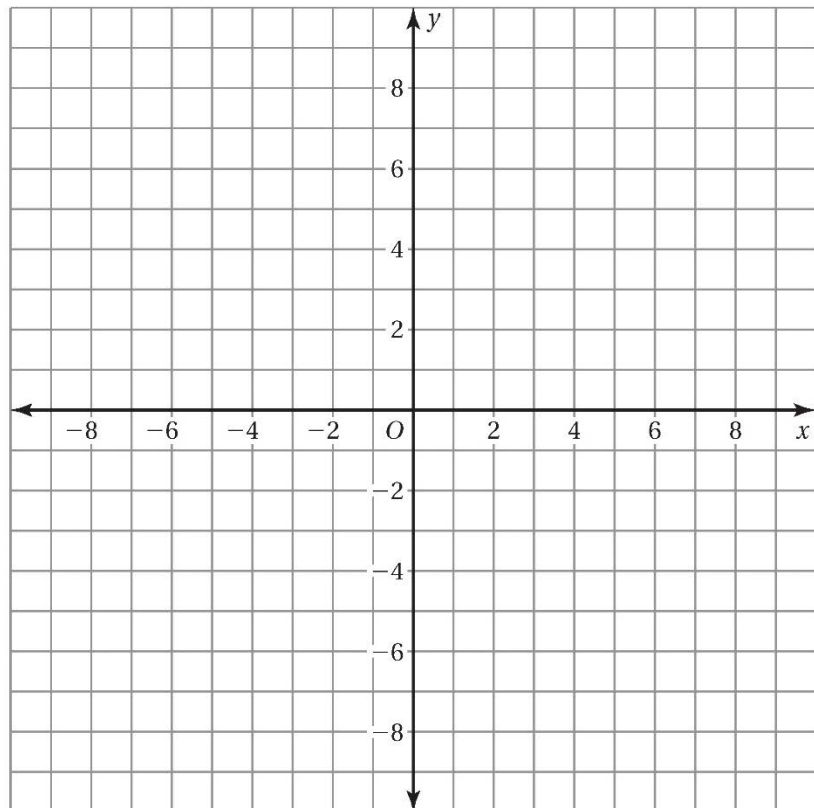
- b) Reflect the rectangle across the  $x$ -axis so the rectangle is in Quadrant IV. List the vertices:

A' ( \_\_\_\_\_ )

B' ( \_\_\_\_\_ )

C' ( \_\_\_\_\_ )

D' ( \_\_\_\_\_ )



c) Compare the dimensions and the angle measures of the new figure to those of the original rectangle.

d) Are the opposite sides of the new figure still parallel? Explain.

e) Can you conclude that the two figures are congruent? Explain.

f) In the same coordinate plane, reflect image of the rectangle across the y-axis so the rectangle is in Quadrant II. List the vertices:

A''( \_\_\_\_\_ )

B''( \_\_\_\_\_ )

C''( \_\_\_\_\_ )

D''( \_\_\_\_\_ )

g) Compare the dimensions and the angle measures of the new figure to those of the original rectangle.

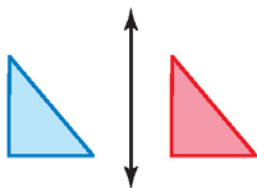
h) Are the opposite sides of the new figure still parallel? Explain.

i) Can you conclude that the two figures are congruent? Explain.

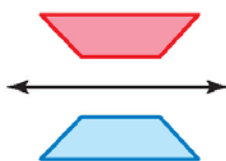
Tell whether the blue figure is a reflection of the red figure.

1

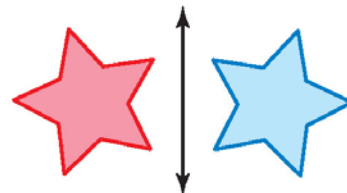
4.



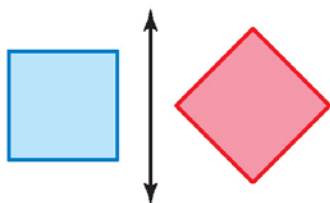
5.



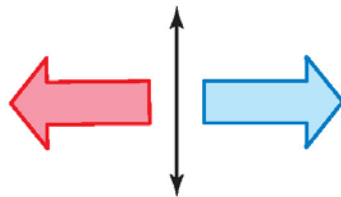
6.



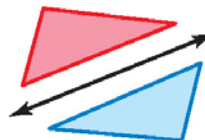
7.



8.



9.



18. **ALPHABET** Which letters look the same when reflected in the line?

