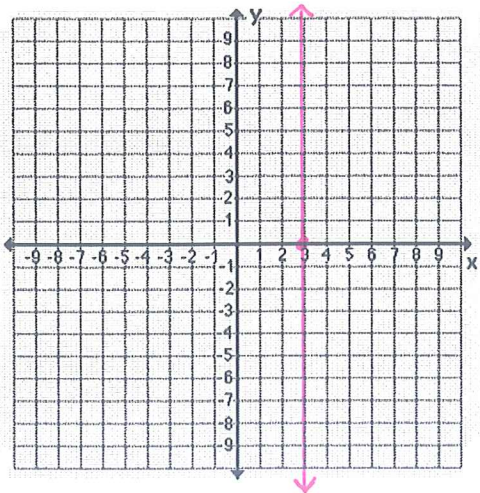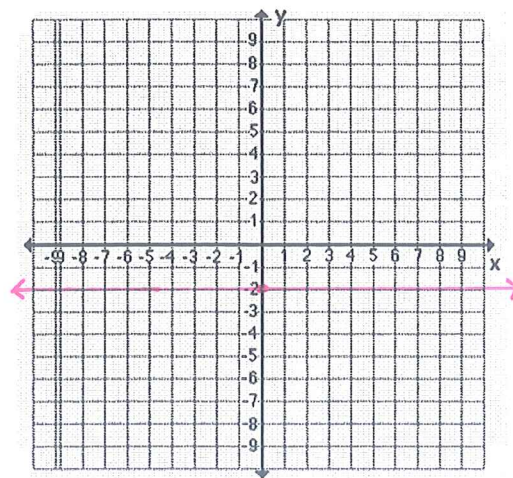Name: _**Key**_

Hour: _____

Reflections Notes

Warm-Up

Graphing Horizontal and Vertical Lines

x = 3

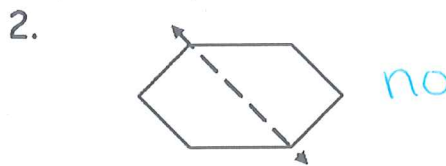
y = -2

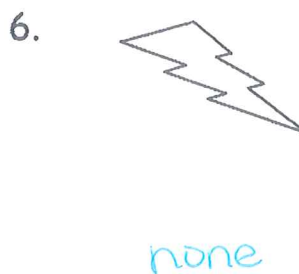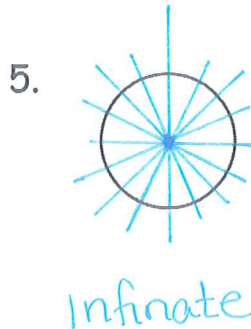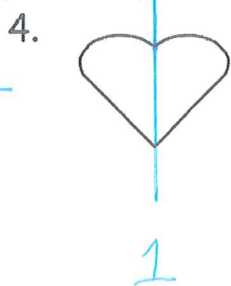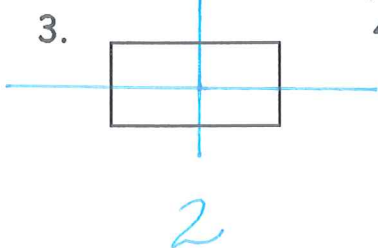Line of Symmetry: _a line where you could fold the image + have both halves match exactly_

Examples

Tell whether the dashed line is a line of symmetry.

1. yes

2. no
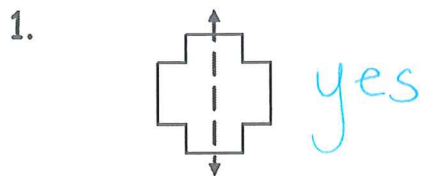
Draw the lines of symmetry, if any.

3. 2

4. 1

5. Infinate

6. none

Reflection: _a "flip" of a polygon/point over the line of reflection_
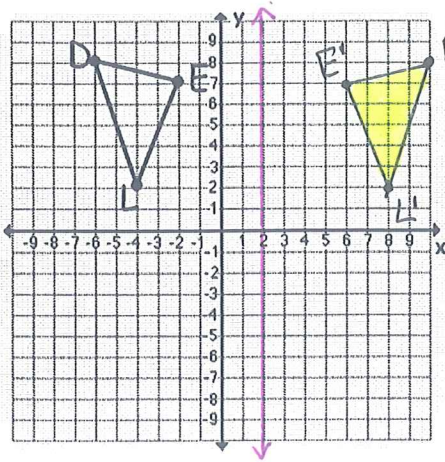
To reflect the image over the line $x = 2$, we do the following:

1. Count how far each vertex is from the line of reflection.
2. Move that many spaces on the other side of the line
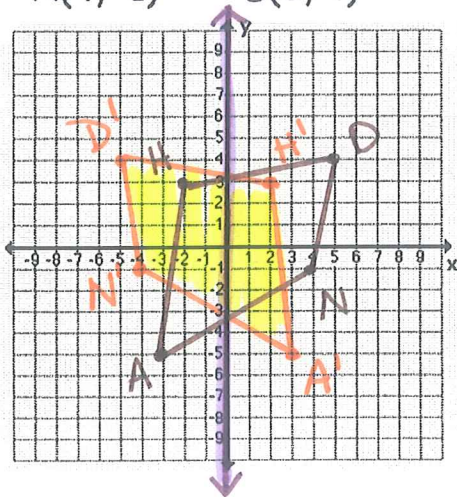3. Label the respective image points.

Do reflections preserve congruency? **yes**

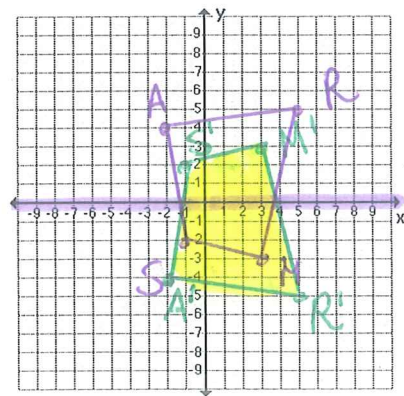Do reflections preserve orientation? **no**

Examples

1. Reflect HAND over the y-axis.
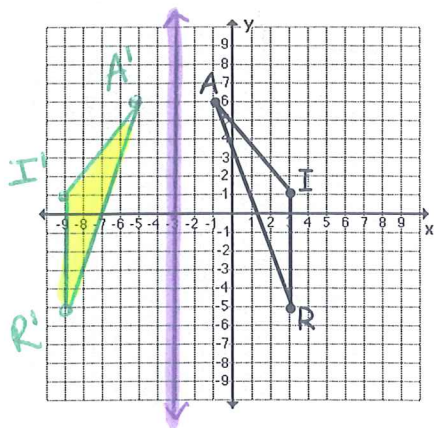
H(-2, 3)   A(-3, -5)
N(4, -1)   D(5, 4)
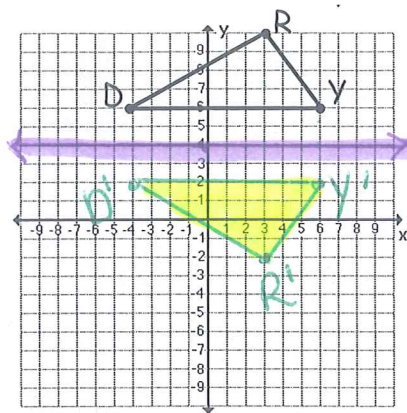

2. Reflect ARMS over the x-axis
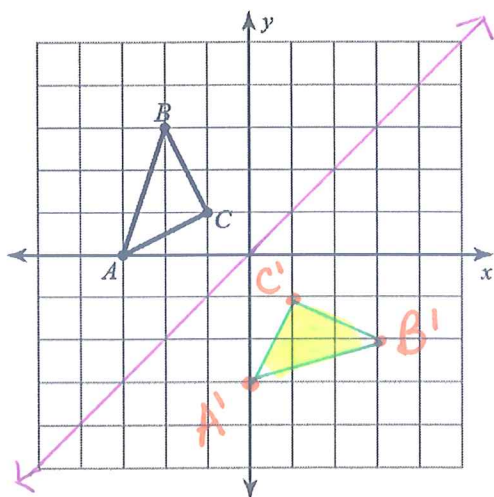
A(-2, 4)   R(5, 5)
M(3, -3)   S(-1, -2)

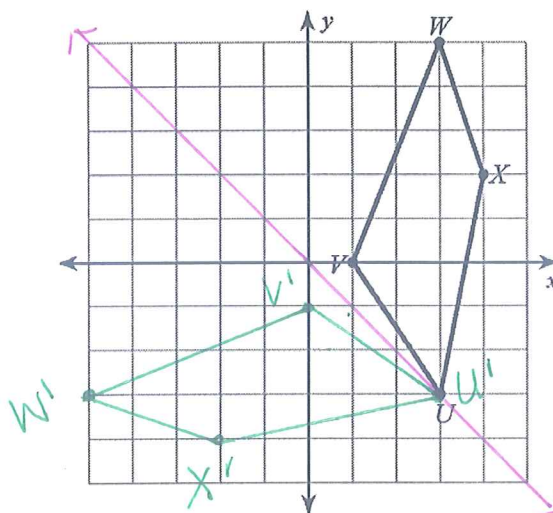3. Reflect over the line $x = -3$
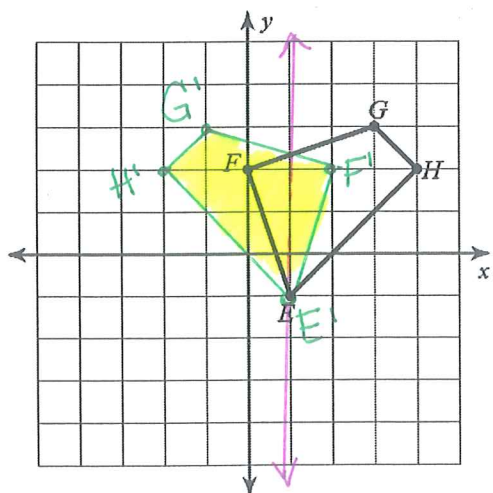
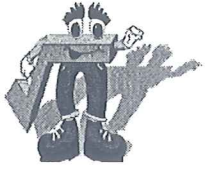4. Reflect over the line $y = 4$

5. reflection across $y = x$

6. reflection across $y = -x$

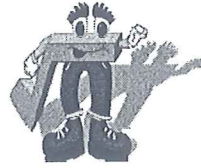7. reflection across $x = 1$
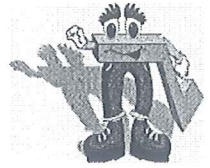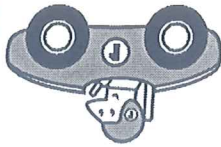
8. Which figure is a reflection of the original?

A.   B.   C.

9. Which figure is a reflection of the original?

A.   B.   C.