Geometry Name_____ ID: 1

Assignment

Date_____ Period____

Write the slope-intercept form of the equation of the line described.

1) through: $(-1, 5)$, parallel to $y = -5x - 4$

$y - 5 = -5(x + 1)$

$y = -5x$

2) through: $(-1, 4)$, perp. to $y = \frac{5}{8}x - 4$

$-\frac{8}{5} = m \perp$

$y - 4 = -\frac{8}{5}(x - -1)$

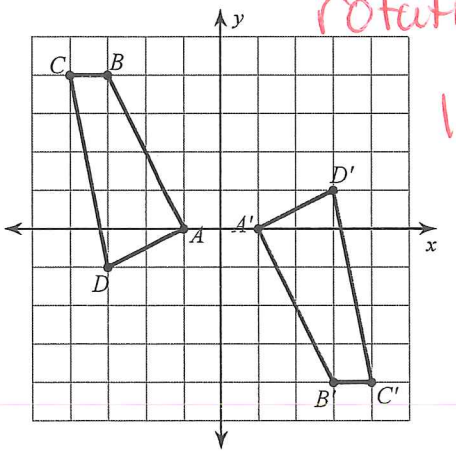
$y = -\frac{8}{5}x + 2.4$

Write the slope-intercept form of the equation of the line parallel through the given points

3) through: $(2, 2)$ and $(-2, -1)$

Write a rule to describe each transformation.

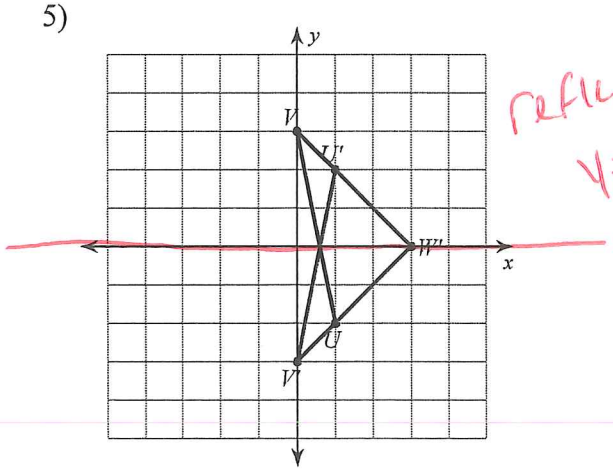
4)



rotation

180°

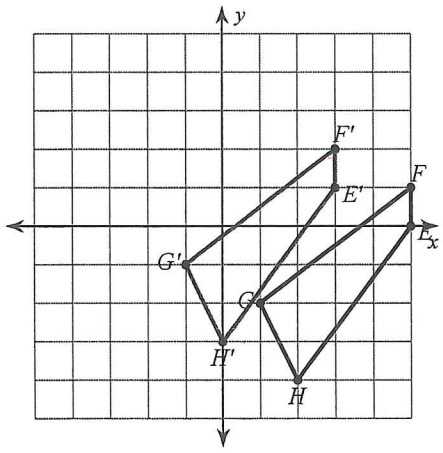
5)



reflection

y=0

6)



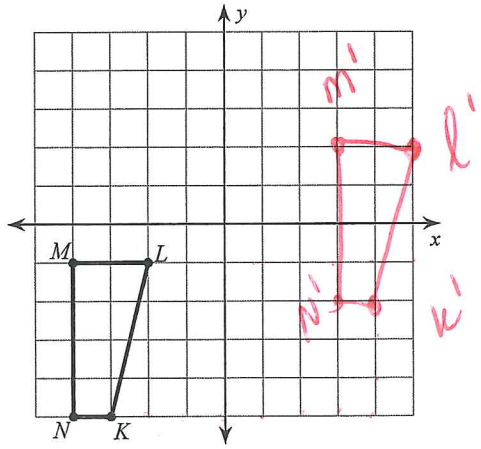
translation

left 2

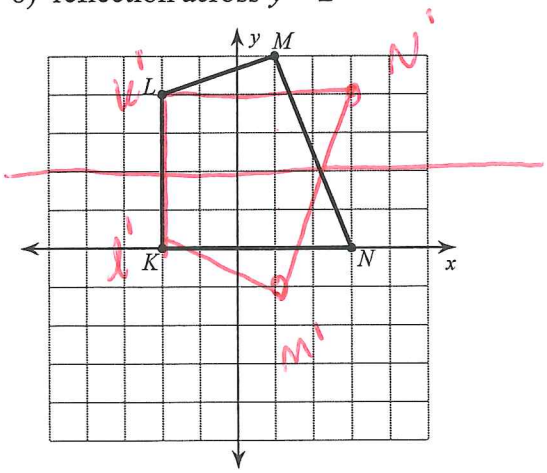
up 1

Graph the image of the figure using the transformation given.

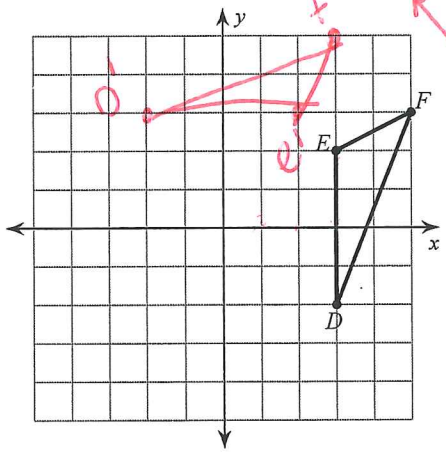
7) translation: $(x, y) \rightarrow (x + 7, y + 3)$



8) reflection across $y = 2$

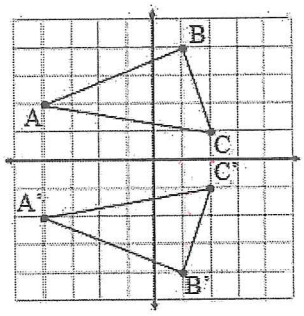


9) rotation 90° counterclockwise about the origin



Write the coordinate notation and describe the transformation

10.



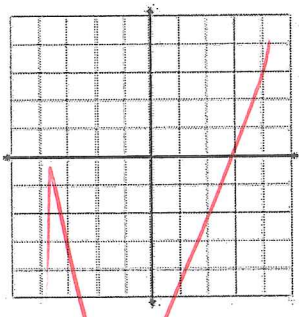
Preimage		Image	
x	y	x'	y'
-4	2	-4	-2
1	+4	1	-4
2	1	+2	-1

Describe: reflection y=0

Coordinate Notation:

$(x, y) \rightarrow$ (x, -y)

11.



Preimage		Image	
x	y	x'	y'
-4	4	-2	2
2	4	1	2
0	-2	0	-1

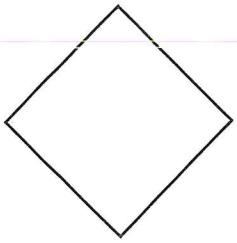
Describe:

Coordinate Notation:

$(x, y) \rightarrow$

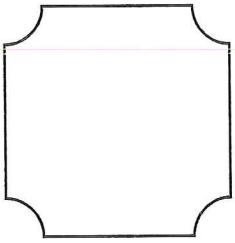
Draw in the lines of symmetry and state how many lines of symmetry each figure has.

1.



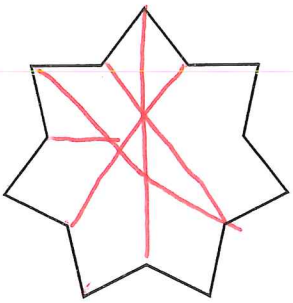
4

2.



4

3.



7

What is the rotational symmetry of the following figures?

12-sided figure

$\frac{360}{12} = 30$

pentagon

$\frac{360}{5} = 72$

octagon

$\frac{360}{8} = 45$