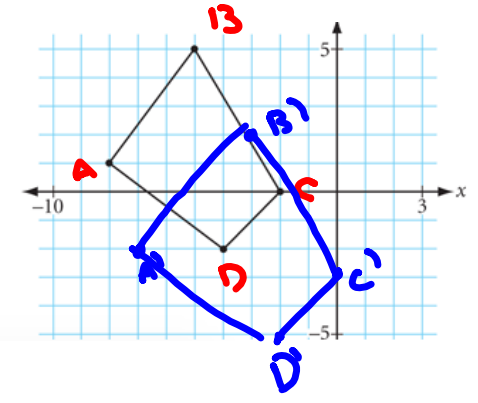
Properties of Transformations

Transform the polygon using the ordered pair rule (x, y)⟶ (x+2 , y-3)



A(-8,1) → A'(-6,-2)

B(-5,5) → B'(-3,2)

C(-2,0) → C'(0,-3)

D(-4,-2) → D'(-2,-5)

Ordered Pair rule - $(x, y) \longrightarrow (x+h, y+k)$ results in a horizontal move of h units and a vertical move of k movements.

This rule can be written as a vector.

<h, k>

Rule from previous page: Translation Vector: <2, -3>

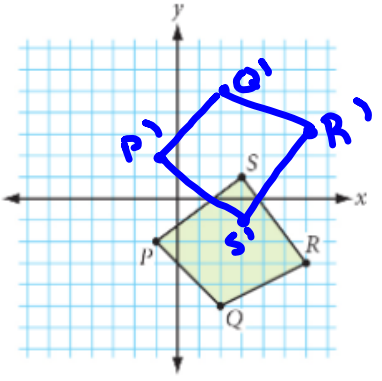
Transform the polygon by using the ordered pair rule (x,y) → (x,-y).

P(-1,-2) → P'(-1,2)

Q(2,-5) → Q'(2,5)

R(6,-3) → R'(6,3)

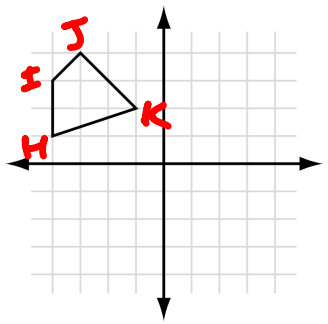
S(3,1) → S'(3,-1)



Ordered pair rule (x,y) → (x,-y) is a reflection across the x-axis

December 18, 2019

Draw this graph on a piece of graph paper



H

I

J

K

The ordered pair rule (x,y) $\rightarrow$ (-x,y) is a reflection across the y-axis

The ordered pair rule (x,y) $\rightarrow$ (-x,-y) is a rotation 180^{o} about the origin

The ordered pair rule (x,y) $\rightarrow$ (y,x) is a reflection across the line y=x

The ordered pair rule (x,y) $\rightarrow$ (-y, x) is a rotation 90^{o} counterclockwise about the origin

The ordered pair rule (x,y) $\rightarrow$ (-y,-x) is a reflection across the line y = -x

Ordered pair rule (x,y) $\rightarrow$ (y,-x) is a 90^{o} clockwise rotation about the origin