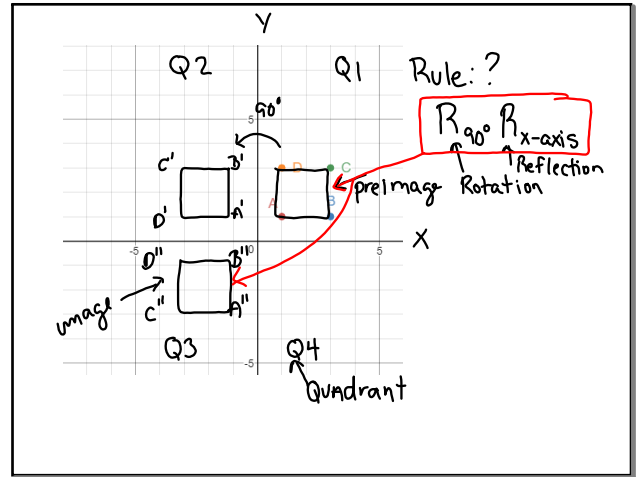


August 6, 2018

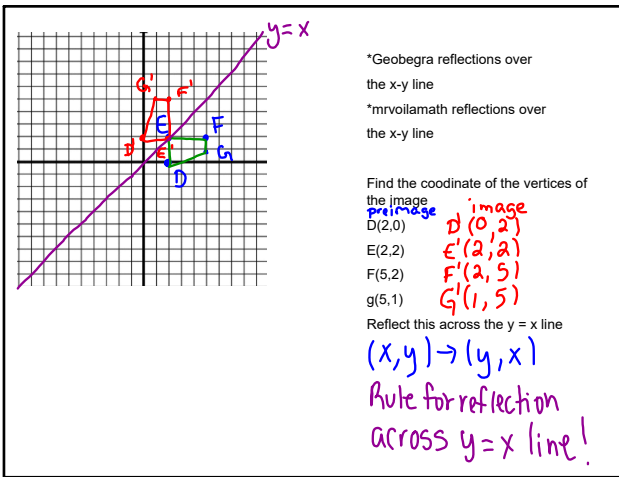
Rotate a square located at (1,1) (3,1) (3,3) and (1,3) in to quadrant 2, then reflect the square across the x-axis. Write a rule for the transformations.

Today -  
geogebra reflection  
find the  $x = y$  line & the  $x = -y$  line  
reflect over these lines  
Study Guide for tomorrow's quiz



Aug 6-7:45 AM

Aug 6-10:26 AM



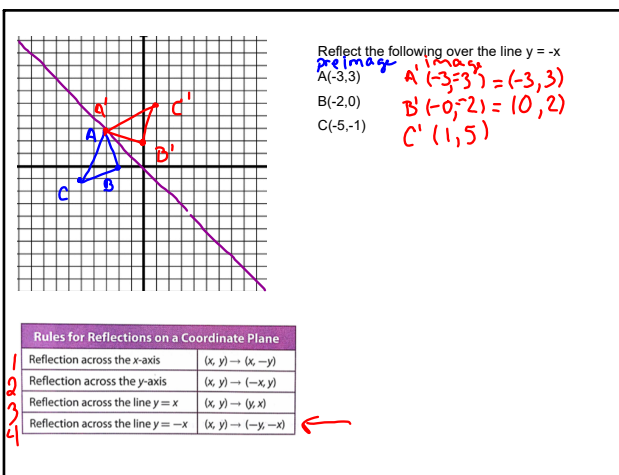
Aug 6-7:50 AM

**Explain 2 Drawing Reflections on a Coordinate Plane**

The table summarizes coordinate notation for reflections on a coordinate plane.

Rules for Reflections on a Coordinate Plane	
Reflection across the x-axis	$(x, y) \rightarrow (x, -y)$
Reflection across the y-axis	$(x, y) \rightarrow (-x, y)$
Reflection across the line $y = x$	$(x, y) \rightarrow (y, x)$
Reflection across the line $y = -x$	$(x, y) \rightarrow (-y, -x)$

Aug 6-11:13 AM



Aug 6-7:52 AM

Your Turn

$\triangle A'B'C'$  is the image of  $\triangle ABC$  under a reflection. On a coordinate grid, draw  $\triangle ABC$ ,  $\triangle A'B'C'$ , and the line of reflection.

Aug 6-7:55 AM

**Explain 4 Applying Reflections**

**Example 4**  
The figure shows one hole of a miniature golf course. It is not possible to hit the ball in a straight line from the tee T to the hole H. At what point should a player aim in order to make a hole in one?

Aug 6-8:00 AM

August 7, 2018

Eyeopener:  
Translate point (3,-7) using rule  $(x - 10, y + 5)$ .  
Where is the image?  
Write the vector for the mapping.

Aug 7-7:50 AM

**Study Guide!**

Unit 1 **Sc4** 1 - Translations & Reflections Name: \_\_\_\_\_

Describe the transformation.

- Given  $A = (5, 4)$ , describe the transformation if  $A' = (0, 0)$ .  $(x-5, y-4)$
- Given  $C = (3, -2)$ , describe the transformation if  $C' = (-12, 32)$ .  $(x+15, y+34)$
- Given  $A = (5, -5)$ , where would  $A'$  be if  $T(x-2, y+k)$  occurred?  $(3, -5)$
- Given  $A = (5, 4)$ , where would  $A'$  be if it was reflected over the line  $y = 0$ ?  $(5, -4)$
- Reflect across the line  $x = 0$ .  $\leftarrow$  **Y-axis**
- Reflect about the line  $y = 0$ .  $\leftarrow$  **X-axis**

Aug 6-11:30 AM

True or False: Circle the correct answer. 7-11

- True or False: Quadrilateral  $ABCD$  is the pre-image. **True**
- True or False:  $AA' \perp AA'$ . **True**
- True or False: Quadrilateral  $ABCD$  is congruent to the quadrilateral  $A'B'C'D'$ . **True** (Same as)
- True or False: The transformation shown is not a reflection. **True**
- True or False: Quadrilateral  $ABCD$  was transformed, to create quadrilateral  $A'B'C'D'$ . **True**

**X-axis**  
**Y=0 line**

Aug 6-1:50 PM

12 Write a translation rule to describe the transformation.  
 $T(x, y) = (x+4, y-1)$

13. Given  $G = (4, 3)$  and  $G' = (-1, 3)$ , what is the line of reflection? **Y-axis**

14. A figure is transformed by  $T(x+4, y-2)$  and then transformation by  $T(x+1, y-5)$ . How does the original pre-image related to the final image after both transformations?  
 $T''(x+5, y-5)$

Aug 6-1:51 PM

**Rule  $(x+2, y+4)$**

15. Point  $P(2, 3)$  has been translated to  $P'(4, 7)$ . Where will point  $Z(4, 7)$  be located after the same translation?  
a.  $Z'(8, 9)$   
b.  $Z'(6, 11)$   
c.  $Z'(8, 5)$   
d.  $Z'(11, 8)$

16. Graph the composition of transformations:  $T(x-2, y)$ ,  $R_{90^\circ}$

5 Bonus Points: Factor and solve the following quadratic equation:  $x^2 - 3x - 4 = 0$

$$(x+1)(x-4) = 0$$

$$\begin{array}{r} x+1=0 \\ -1-1 \\ \hline x=-1 \end{array} \quad \begin{array}{r} x-4=0 \\ +4+4 \\ \hline x=4 \end{array}$$

Aug 6-1:52 PM

Quiz

Bonus correction  
 $x^2 + 4x + 4 = 0$

Aug 7-7:52 AM

August 8, 2016

Eyopener: Highly missed problems from the quiz...try them today!

3. Given  $A = (3, -5)$ , where would  $A'$  be if  $T(x + 2, y - 14)$  occurred?  $(5, -19)$  ✓

4. Given  $A = (5, 4)$ , where would  $A'$  be if it was reflected over the line  $x = 0$ ?  $(-5, 4)$

5. Reflect across the line  $y = 0$

6. Reflect about the line  $x = 0$

Get your SG out!

Aug 7-2:56 PM

p 78 copy into your notebooks the first 4 lines of text

Let's investigate some Geometry rotations around the 'origin.'

Geogebra, rotations

Aug 7-10:05 AM

Let's rotate 2 figures.

$R_{270^\circ}$  around the origin

$A(3, 1)$   
 $B(6, 2)$   
 $Y(3, 4)$   
 $Z(6, 5)$

Meas A' to +ho origin  
 Rotate 270  
 Measure A to origin  
 Measure D to origin

Aug 7-10:05 AM

p80 rules for rotation

The table summarizes rules for rotations on a coordinate plane.

Rules for Rotations Around the Origin on a Coordinate Plane	
90° rotation counterclockwise	$(x, y) \rightarrow (-y, x)$
180° rotation	$(x, y) \rightarrow (-x, -y)$
270° rotation counterclockwise	$(x, y) \rightarrow (y, -x)$
360° rotation	$(x, y) \rightarrow (x, y)$

Aug 7-10:05 AM

Protractor vs Rules...which one will you choose?

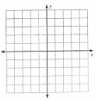
Kuta Software - Infinite Pre-Algebra  
 Rotations of Shapes  
 Name: \_\_\_\_\_ Date: \_\_\_\_\_ Period: \_\_\_\_\_

Graph the image of the figure using the transformation given.

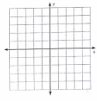
- rotate 180° about the origin
- rotate 90° counterclockwise about the origin
- rotate 90° clockwise about the origin
- rotate 180° about the origin

Aug 7-3:14 PM

5) rotation 90° clockwise about the origin  
 $D(1, -2), W(0, 2), A(3, 1), G(3, -3)$



6) rotation 180° about the origin  
 $K(2, 0), S(1, 2), G(0, 0)$



Find the coordinates of the vertices of each figure after the given transformation.

7) rotation 180° about the origin  
 $P(-1, -5), A(-1, 0), G(1, 1), M(1, -2)$

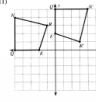
8) rotation 180° about the origin  
 $E(1, 2), P(5, 3), F(4, 2)$

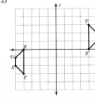
9) rotation 90° clockwise about the origin  
 $R(-4), W(0), A(3, -4)$


10) rotation 180° about the origin  
 $V(-5, -3), A(-3, 1), G(0, -3)$

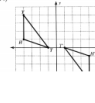
Aug 7-3:14 PM

Write a rule to describe each transformation.

11) 

12) 

13) 

14) 

Aug 7-3:15 PM

### August 9, 2018

What is the easiest transformation for you (translation, reflection or rotation)?  
 Please explain why this is the easiest transformation for you.  
 Sketch a figure (square, rectangle, triangle, etc) displaying this type of transformation.

Aug 7-10:05 AM

### Odd, even or neither functions

Andy Wain, describe an even, odd, and neither function

mathbyfives, even, odd, neither symmetry by looking @ the graph


...be ready to share what you have learned.


Aug 7-10:05 AM


### Even, Odd, or Neither Worksheet


Name: \_\_\_\_\_


Determine whether the following functions are even, odd, or neither.


1.  $f(x) = 4x - 3$  

2.  $f(x) = |x| + 1$  

3.  $f(x) = -x^2 - 4$  

4.  $f(x) = \frac{1}{3}x^2$  

5.  $f(x) = 7x$  

6.  $f(x) = \sqrt{x} + 3$  

Aug 7-3:07 PM

7.  $f(x) = 3x^2$       8.  $f(x) = x^3 - 2$       9.  $f(x) = 3x + 4$

10.  $f(x) = x^2 - 5$       11.  $f(x) = 10x + 5$       12.  $f(x) = 2(x+1)^2$

Aug 7-3:08 PM