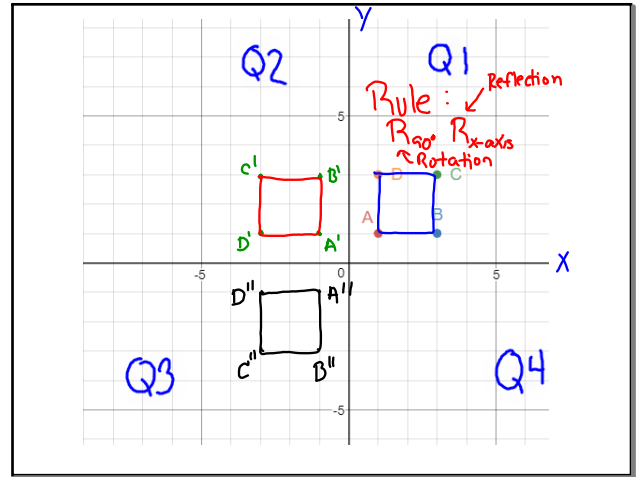


August 6, 2018

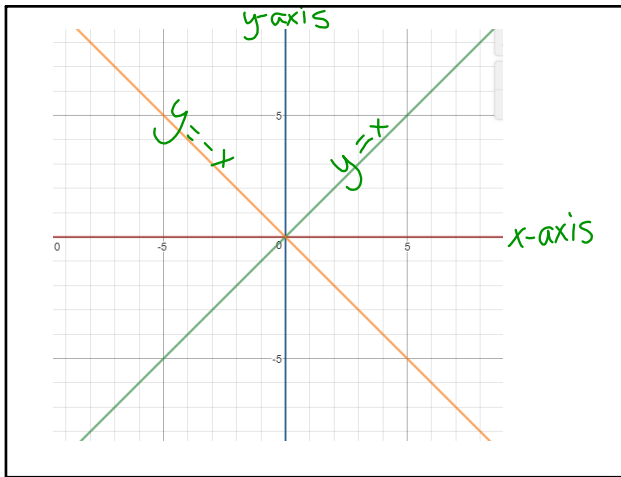
Rotate a square located at (1,1) (3,1) (3,3) and (1,3) in to quadrant 2, then reflect the square across the x-axis. Write a rule for the transformations.

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

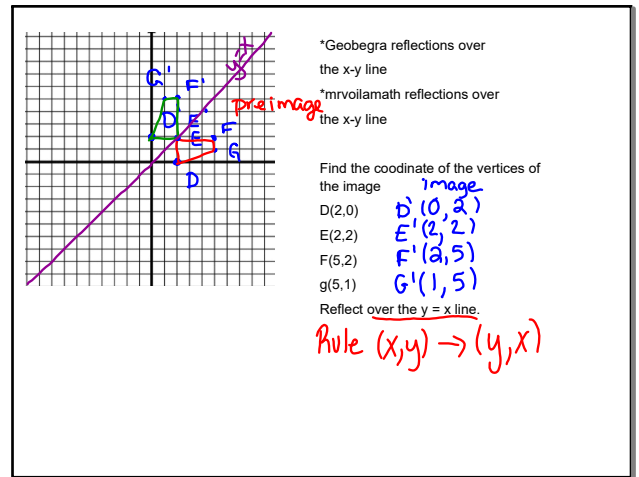


Aug 6-7:45 AM

Aug 6-11:57 AM



Aug 6-12:17 PM

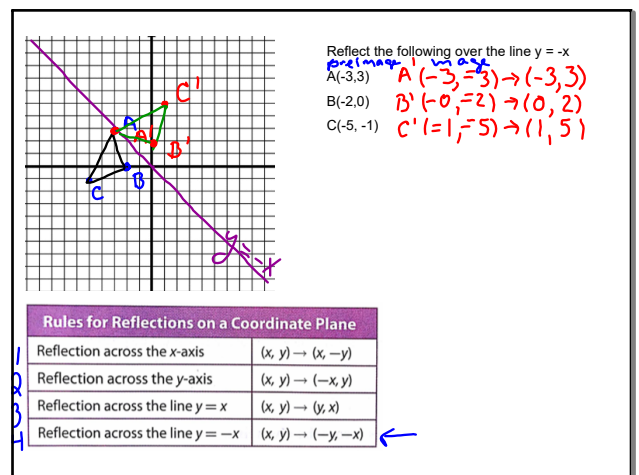


Aug 6-7:50 AM

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



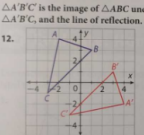
Rules for Reflections on a Coordinate Plane	
Reflection across the x-axis	$(x, y) \rightarrow (x, -y)$
Reflection across the y-axis	$(x, y) \rightarrow (-x, y)$
Reflection across the line $y = x$	$(x, y) \rightarrow (y, x)$
Reflection across the line $y = -x$	$(x, y) \rightarrow (-y, -x)$

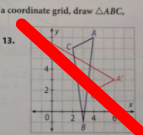
Aug 6-12:20 PM

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.

12. 

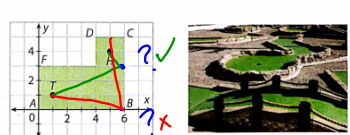
13. 

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? $(3 - 10, -7 + 5) \rightarrow (-7, -2)$
 Write the vector for the mapping. $\langle -10, 5 \rangle$

preimage

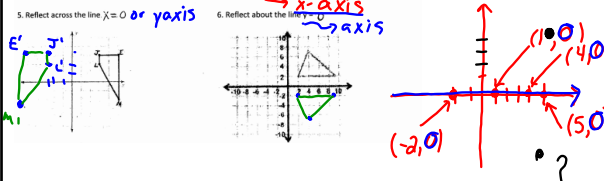
$T_{-10, 5}$
 Vector $\langle -10, 5 \rangle$

Aug 7-7:43 AM

Unit 1 **Translations & Reflections**

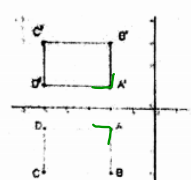
Describe the transformation.

- 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 $A = (3, -5)$, where would A' be if $T(x - 3, y + 4)$ occurred? $(0, -1)$
- Given $A = (5, 4)$, where would A' be if it was reflected over the line $y = 0$? $(5, -4)$
- Reflect across the line $x = 0$ or **y-axis**.
- Reflect about the line **x-axis**.



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

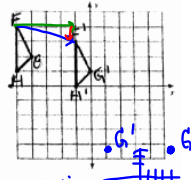


7. Quadrilateral $A'B'C'D'$ is the pre-image. **True or False**
8. $AA' \neq AA'$. **True or False**
9. Quadrilateral $ABCD$ is congruent to the quadrilateral $A'B'C'D'$. **True or False** *the same*
10. The transformation shown is not a reflection. **True or False**
11. Quadrilateral $ABCD$ was **rotation** to create quadrilateral $A'B'C'D'$. **True or False** *ec*

Aug 6-1:51 PM

12 Write a translation rule to describe the transformation.

$T(x, y) = (x + 4, y - 1)$



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

14. A figure is transformed by $T(x + 4, y - 2)$ and then transformation by $T(x + 1, y - 3)$. How does the original pre-image relate to the final image after both transformations?
 $(x + 5, y - 5)$

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15 Point $P(2, 3)$ has been translated to $P'(4, 7)$. Where will point $Z(4, 7)$ be located after the same translation?

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

16. Graph the composition of transformations.

$T_{(-2, -3)}$, $R_{y\text{-axis}}$

2 more movements

a. $Z'(8, 9)$ b. $Z'(6, 11)$ (circled)
 c. $Z'(0, 5)$ d. $Z'(11, 6)$

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

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

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

Aug 6-1:52 PM

Quiz!

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

4x

Aug 7-7:43 AM

p 78 copy into your notebooks the first 5 lines of text

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

[Geogebra, rotations](#)

Aug 7-7:53 AM

Let's rotate 2 figures.

Aug 7-7:59 AM

Aug 7-7:59 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 7-7:58 AM



Aug 7-8:39 AM

Odd, even or neither functions

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

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

A rectangular box containing text and two dark grey comment-style boxes. The text at the top reads "Odd, even or neither functions". Below it are two lines of text, each followed by a dark grey box containing a name and a question or statement.

Aug 7-8:40 AM