

Created by Ms. Poe

Warmup $2/(10 \div 2 \cdot 2 + 6 \div 2)$

- NEED:
- Protractor
- One piece of patty paper

(Week 6!)

Draw a capital "P" like so:

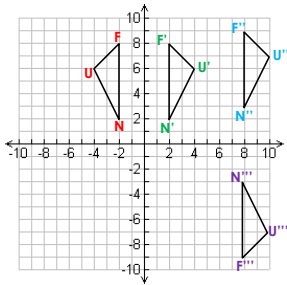
P

- 1) Draw what the P would look like rotated 90° clockwise.
- 2) Draw what the P would look like rotated 180° clockwise.
- 3) Draw what the P would look like rotated 270° clockwise.
- 4) Draw what the P would look if you reflected it using a vertical line of reflection.
- 5) Draw what the P would look if you reflected it using a horizontal line of reflection.
- 6) (Challenge) Draw what the P would look if you reflected it using a diagonal line of reflection.

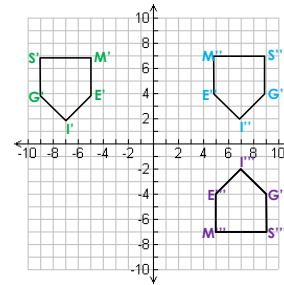
QUIZ IS NOW THURSDAY

- Doing transformations without patty paper
- Doing transformations **with** patty paper
- Doing transformations in reverse (today!)

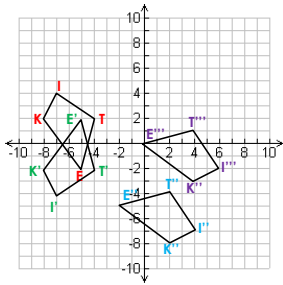
Challenge 1



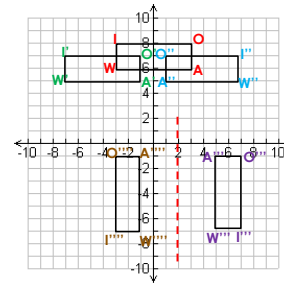
Challenge 2



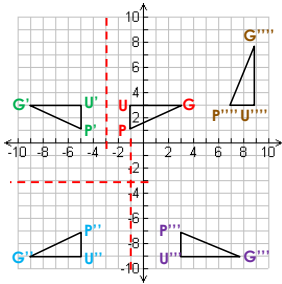
Challenge 3



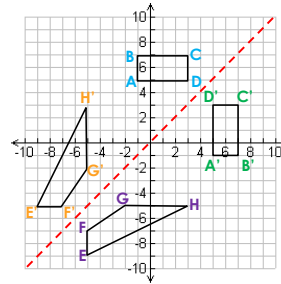
Challenge 4



Challenge 5

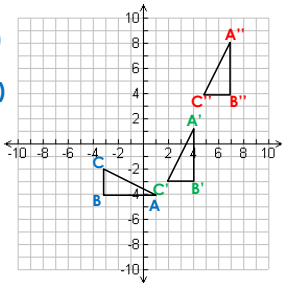


Challenge 6



Challenge 7

A (1, -4)
B (-3, -4)
C (-3, -2)

Check for understanding:
Using Patty Paper

- There will be 2 parts of the quiz: WITH patty paper and WITHOUT patty paper
- For the patty paper section, you will be required to use it – you will staple it to the quiz
- This CFU will help me see if you remember how to the transformations with patty paper!
- PLEASE CHANGE #3 TO SAY 120° INSTEAD OF 135°!**

Table of Contents (2nd Semester)

- p. 1 Exponent Basics (1.2)
- p. 2 Multiplying and Dividing Powers (1.3)
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- p. 5 Scientific Notation (1.6)
- p. 6 Calculating with Scientific Notation (1.7)
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- p. 8 Angles formed by Parallel Lines (5.1)
- p. 9 Angles of Triangles (5.3)
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- p. 11 Rotations (handout)
- p. 12 Reverse Transformations**

Reverse Transformations

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Today's Objectives:

- Perform translations, reflections, and rotations in reverse!

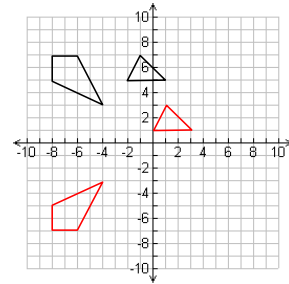
More transformation problems...

ON GRAPH 1

- A triangle was translated **4 units up** and **2 units left**. The image is $A'(-2, 7)$ $B'(-1, 9)$ $C'(1, 7)$. Draw the original triangle ABC .
- **In reverse: 2 right and 4 down**

ALSO ON GRAPH 1

- A quadrilateral was reflected across the x-axis. The image is $D'(-8, 5)$ $E'(-8, 7)$ $F'(-6, 7)$ $G'(-4, 3)$. Draw the original quadrilateral $DEFG$.
- **In reverse: reflect back across the x-axis**



Counterclockwise and clockwise...

- It's very easy to mix these up if you're not careful.
- **PICTURE A CLOCK!!!**

More transformation problems...

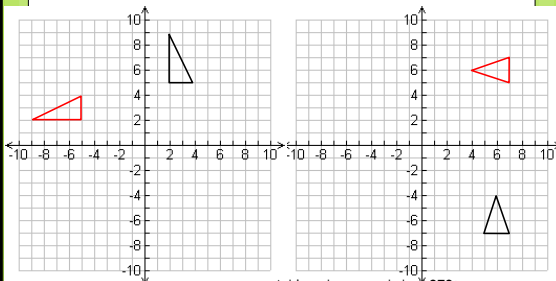
ON GRAPH 2

- A triangle was rotated **90° clockwise**. The image is $A'(2, 5)$ $B'(2, 9)$ $C'(4, 5)$. Draw the original triangle ABC .
- **In reverse: 90° counterclockwise**

ON GRAPH 3

- A triangle was rotated **270° counterclockwise**. The image is $D'(5, -7)$ $E'(6, -4)$ $F'(7, -7)$. Draw the original triangle DEF .
- **In reverse: 270° clockwise**

A triangle was rotated **90° clockwise**.



A triangle was rotated **270° counterclockwise**.

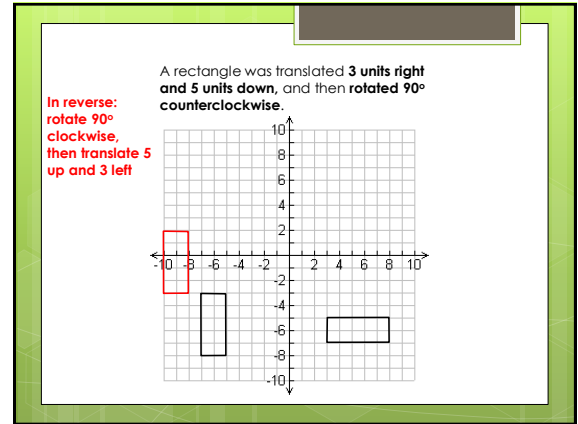
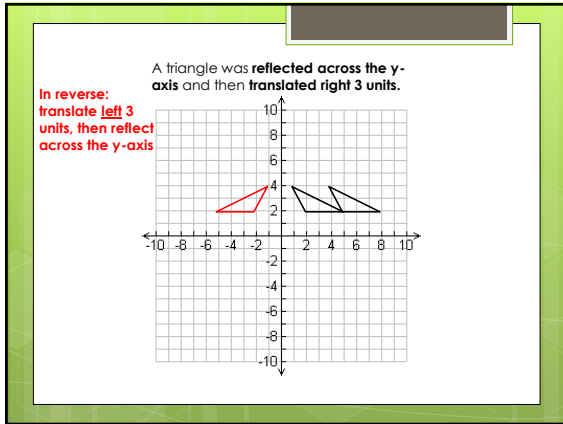
More transformation problems...

ON GRAPH 4

- A triangle was **reflected across the y-axis** and then **translated right 3 units**. The image is $A'(5, 4)$ $B'(6, 2)$ $C'(9, 2)$. Draw the original triangle ABC .
- **In reverse: translate left 3 units, then reflect across the y-axis**

ON GRAPH 5

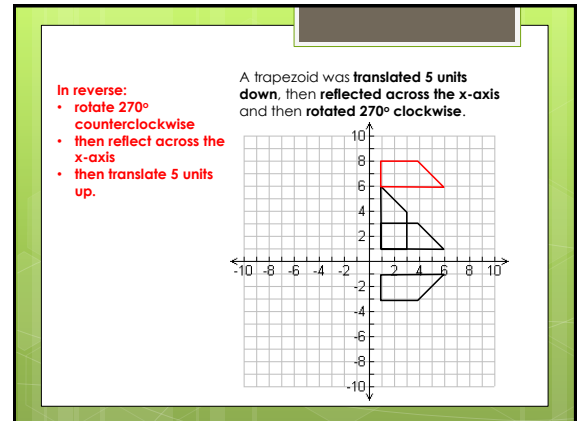
- A rectangle was translated **3 units right** and **5 units down**, and then rotated **90° counterclockwise**. The image is $D'(3, -7)$ $E'(8, -7)$ $F'(8, -5)$ $G'(3, -5)$. Draw the original rectangle $DEFG$.
- **In reverse: rotate 90° clockwise, then translate 5 up and 3 left**



More transformation problems...

ON GRAPH 6

- A trapezoid was **translated 5 units down**, then **reflected across the x-axis** and then **rotated 270° clockwise**. The image is **A'(1, 6)** **B'(1, 1)** **C'(3, 1)** **D'(3, 4)**. Draw the original trapezoid ABCD.
- **In reverse:** rotate **270° counterclockwise**, then **reflect across the x-axis**, then **translate 5 units up**.



HOMEWORK:

- Worksheet – Reverse transformations and Finding your own sequences of transformations