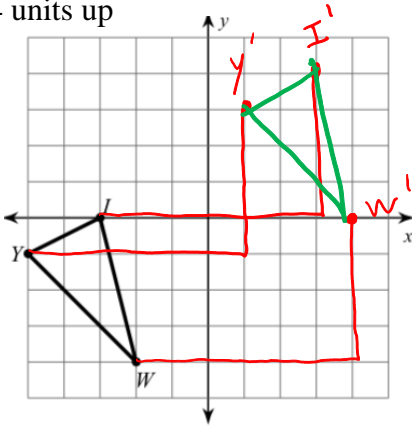
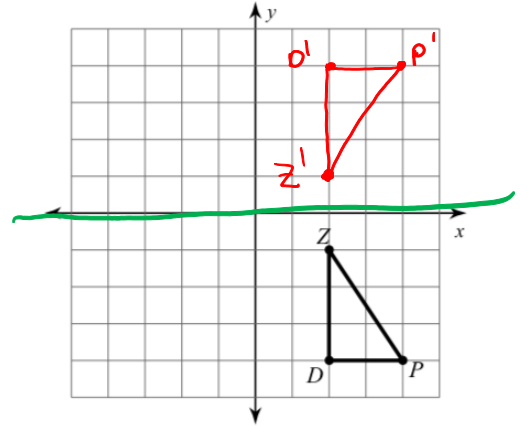


NC Math 2: Unit 1 Review Sheet

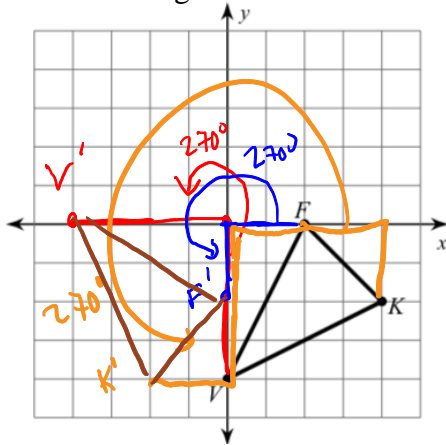
1. Translate the triangle 6 units right and 4 units up



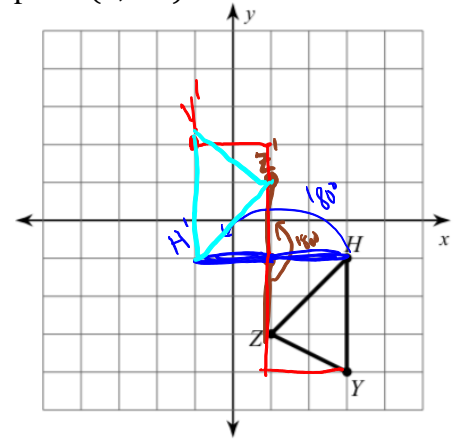
2. Reflect the triangle over the x axis



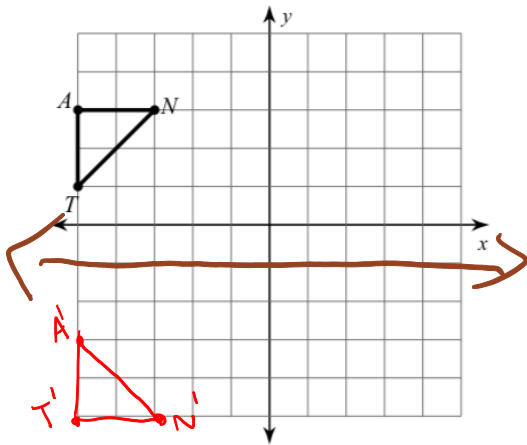
3. Rotate the triangle 270° counterclockwise around the origin



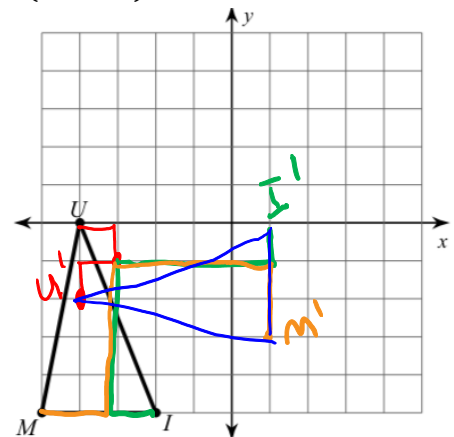
4. Rotate the triangle 180° around the point (1, -1)



5. Reflect the triangle over the line $y = -1$



6. Rotate the triangle 90° counter-clockwise around $(-3, -1)$



Make sure you know:

Vocabulary Words: Quadrilateral, Trapezoid, Rhombus

Algebraic Rules for Rotations and Reflections

Find the line of Reflection give a pre-image and image (see homework for practice)

7. What is the slope of a line that is parallel to $y = 3x - 1$? What is the slope of a line that is perpendicular to $y = 3x - 1$?

parallel $m = 3$

perpendicular $m = -1/3$

8. What is the slope of a line that is parallel to $4x - 2y = 8$? What is the slope of a line that is perpendicular to $4x - 2y = 8$?

$y = 2x - 4$

perpendicular $m = -1/2$

parallel $m = 2$

9. D Which equation is parallel to $y = -8x - 3$?

A. $y = \frac{1}{8}x + 4$

B. $-8x + y = 2$

C. $\frac{1}{8}x - y = 1$

D. $y = -8x - 6$

10. A Which equation is perpendicular to $y = -\frac{1}{6}x - 5$?

A. $y = 6x - 2$

B. $6x + y = 2$

C. $\frac{1}{6}x - y = -1$

D. $y = -6x - 3$

11. What is the difference between a *pre-image* and an *image*?

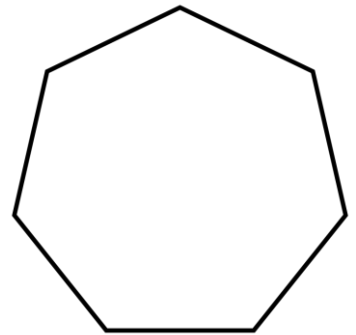
before transformation

For questions 12-14, use the regular heptagon to the right.

12. List ALL the angles of rotation up to 360° that will carry the figure onto itself.

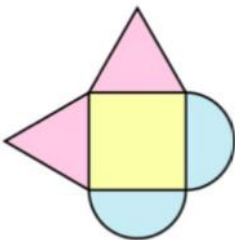
13. On the heptagon, draw the lines of symmetry that carry the figure onto itself.

14. How many lines of symmetry are there? _____



Determine if the images below have rotational symmetry, line symmetry, both, or none.

15.



16.



17.



18.