Ready, Set, Go!

Ready

Topic: Transformations of lines, algebraic and geometric thoughts.

For each set of lines use the points on the line to determine which line is the image and which is the pre-image, label them, write image by the image line and pre image by the original line. Then define the transformation that was used to create the image. Finally find the equation for each line.
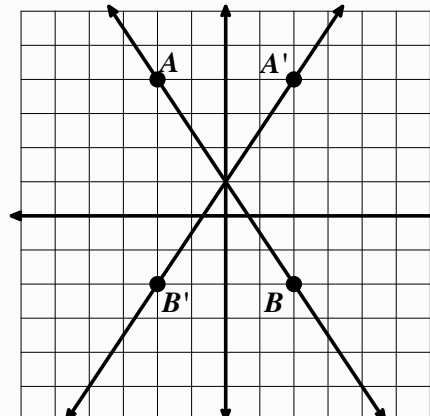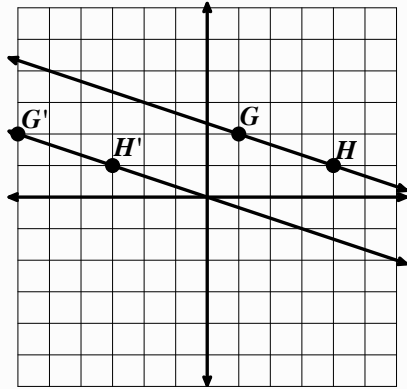
1.
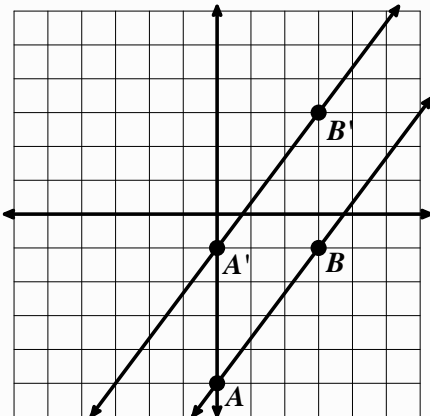
a. Description of Transformation:

b. Equation for pre-image:

c. Equation for image:

2.

a. Description of Transformation:

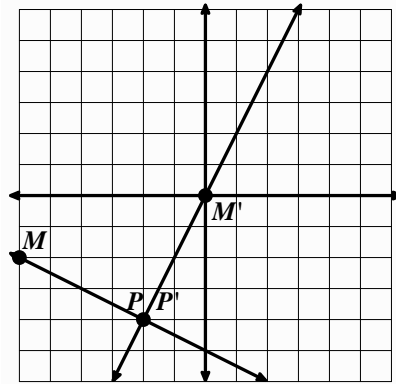b. Equation for pre-image:

c. Equation for image:
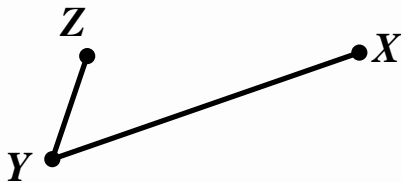
3.

4.

a. Description of Transformation:

a. Description of Transformation:

b. Equation for pre-image:

b. Equation for pre-image:

c. Equation for image:
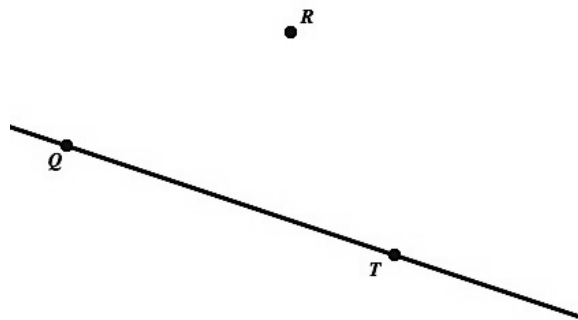
c. Equation for image:

Set
Topic: Geometric Constructions using compass and straight edge.

5. Construct a parallelogram given sides $\overline{XY}$ and $\overline{YZ}$ and $\angle XYZ$.

6. Construct a line parallel to $\overline{QT}$ and through point **R.**

7. Given segment $\overline{AB}$ show all points C such that $\triangle ABC$ is an isosceles triangle.

A •————————————• B

8. Given segment $\overline{AB}$ show all points C such that $\triangle ABC$ is a right triangle.

A •————————————• B

Go

Topic: Triangle congruence and properties of polygons.

9. What is the minimum amount of information needed to determine that two triangles are congruent? List all possible combinations of needed criteria.

10. What is a line of symmetry and what is a diagonal? Are they the same thing? Could they be the same in a polygon? If so give an example, if not explain why not.

11. How is the number of lines of symmetry for a *regular* polygon connected to the number of sides of the polygon? How is the number of diagonals for a polygon connected to the number of sides?

12. What do right triangles have to do with finding distance between points on a coordinate grid?