G4 – Introduction to Mira

Name__________________________  Period____________

Reflection

1. Reflect each figure over the given line.
2. Draw a line from the original point to its reflection.
3. Measure the distance in millimeters from each point to the line of reflection. Write the distance on each line segment.
PULLING IT TOGETHER.

Write a paragraph explaining any relationships you see. Give details in clear mathematical language.
Bisectors

What does it mean to bisect an image?

You will use your Mira Reflector to construct the bisector of each segment below.

1.                                  2.

3.                                  4.

Examine the bisector and the 4 angles formed. Explain any relationships you observe.

You will use your Mira Reflector to construct the angle bisector of each angle below.
Explain how the two smaller angles formed are the same.
**Quadrisecting Angles**

*Use your Image Reflector*™ *to quadrisect the angle, arc, and circle below.*

1. 

2. 

3. 

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43 Bisecting Angles of a Triangle

Use your Image Reflector™ to bisect all angles of the triangles pictured below.

1.

2.

3.
Reflections with Mira

1. Use your image reflector to reflect each over line \( l \). Label each point of reflection with a prime: A’s reflect is A’, etc.

\[ \text{. A} \quad \text{. B} \quad \text{. C} \quad \text{. D} \quad \text{. E} \quad \text{. F} \quad \text{l} \]

Measure the distance from each point to line \( l \) in millimeters. Record the distances below.

\[ \text{A} \quad \text{A’} \quad \text{B} \quad \text{B’} \quad \text{C} \quad \text{C’} \quad \text{D} \quad \text{D’} \quad \text{E} \quad \text{E’} \quad \text{F} \quad \text{F’} \]

Write a paragraph explaining any relationships you observe.
2. Reflect triangle ABC about line j.

3. Reflect this quadrilateral across line m.

4. Measure the distances from the lines of reflection to your polygon above. Did your observations from problem 1 hold true?
5. Create your own figure, draw a line of reflection, and the image.

6. Examine all the figures and their images. List some characteristics of reflections that you have observed.