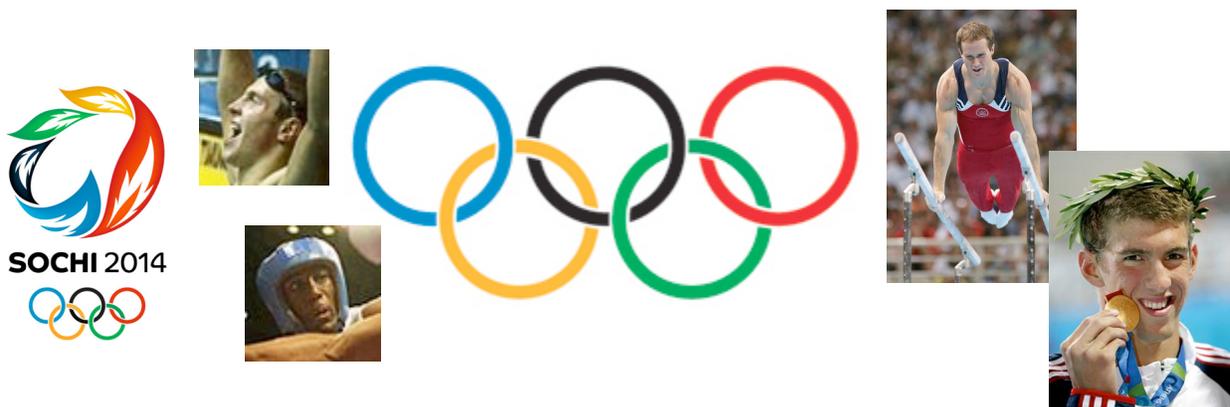


## “Lord of the Rings”

*The symbol of the Olympic Games is composed of five interlocking rings, colored blue, yellow, black, green, and red on a white field. This was originally designed in 1912 by Baron Pierre de Coubertin, the founder of the modern Olympic Games. "These five rings represent the five parts of the world now encompassed by Olympism and ready to compete against each other. Moreover, the six colors (including the white background) thus combined represent those of all nations, without exception." According to De Coubertin the ring colors with the white background stand for those colors that appeared on all the national flags of the world at that time. The blue and yellow of Sweden, the blue and white of Greece, the French, English, American, German, Belgian, Italian and Hungarian tricolours, the yellow and red of Spain are side by side with the new Brazilian and Australian flags, the old Japan and the new China. It is a true international emblem."* - Coubertin (Selected Writings II, p. 460, 1913)



Sochi, Russia was host to the 2014 Olympic Winter games.

### Your Task:

Using a coordinate plane, re-create the five interlocking rings (circles) of the Olympic Symbol and provide the equations for each ring.

### Your Final Project Will Comprise of:

1. A **neatly colored drawing** of the Olympic rings on graph paper.
2. The **10 equations** that make up each ring (2 for each circle) in the correct form.
3. A **DETAILED 1-page reflection** explaining what steps you took to create your drawing, how you found each equation, and your reaction to this project. The reflection should be typed (double spaced) or neatly hand written.
4. This **Assignment Sheet** stapled to the back of the reflection.

### Grading Rubric:

This project is worth a total of 50 points based on the rubric provided on the back.

### Project Due Date:

This project is due no later than **Monday April 28th**. Late projects not accompanied by a note from a parent will be subject to a **5-point deduction** from your project grade.

**NO PROJECTS WILL BE ACCEPTED AFTER MAY 2<sup>ND</sup>.**

## Grading Rubric – Lord of the Rings

**Student Name:** \_\_\_\_\_

<b>CATEGORY</b>	<b>Exceeds Expectations</b>	<b>Meets Expectations</b>	<b>Barely Meets Expectations</b>	<b>Does Not Meet Expectations</b>
<b>Diagram – The Olympic Rings</b>  <b>10 points</b>	Your diagram is a clear replica of the original. It is colored and demonstrates understanding of the procedure(s).	Your diagram is similar to the original. It is colored and demonstrates understanding of the procedure(s).	Your diagram is somewhat similar to the original but does not have all congruent circles and/or perfect symmetry.	Your diagram is missing or incomplete. It contains various size circles, no symmetry and/or look like Olympic rings.
<b>Mathematical Concepts – Equations</b>  <b>20 points</b>	All equations are provided and they are all written correctly.	All equations are provided and they are mostly accurate (no more than two calculation errors)	Most of the equations are provided with some accuracy - multiple calculation errors	Most of equations are missing or incorrect.
<b>Mathematical Concepts – Explanation</b>  <b>15 points</b>	Explanation is <b>detailed</b> and clear and shows complete understanding of the mathematical concepts used to solve the problem. Effort was put into this assignment.	Explanation is clear and shows substantial understanding of the mathematical concepts used to solve the problem(s). A good deal of effort was put into your work.	Explanation is a little difficult to understand, but shows some understanding of the mathematical concepts needed to solve the problem(s).	Explanation is difficult to understand and shows very limited understanding of the underlying concepts needed to solve the problem(s) OR is not written.
<b>Neatness and Organization</b>  <b>5 points</b>	Work is presented in a neat, clear, organized fashion that is easy to read.	Work is presented in a neat and organized fashion that is usually easy to read.	Work is presented in an organized fashion but may be hard to read at times.	Work appears sloppy and unorganized. It is hard to know what information goes together.

**Performance Indicators:**

G.G.71 Write the equation of a circle, given its center and radius or given the endpoints of a diameter

G.G.72 Write the equation of a circle, given its graph. (*Note: The center is an ordered pair of integers and the radius is an integer.*)

**Math Practices: MP1, MP4, MP5 & MP6**