Mathworks Junior Summer Math Camp  
Level 3 Tentative Syllabus

Chapter 5: Geometry, Patterns and Formulas

Day 1- Areas and Perimeters of Rectangles and Triangles
• Compute Area and Perimeter
• Develop Formula for Rectangles and Triangles

Day 2- Right Triangles
• Investigate Lengths of Sides of Right Triangles
• Develop a Formula for the Distance Between Two Points

Day 3 & 4- Measuring Angles and an Introduction to Geometry
• Measure Angles Using a Protractor
• Recognize Special Angles, including 180°, 90°, and 45°
• Find Supplementary Angles
• Define Vertical Angles and Why They are Equal
• Explore Geometry Theorems and Corresponding Angles
• Find the Sum of the Angles in a Triangle
• Recognize Similar Shapes

Day 5- Using Graphs to Represent Data
• Represent Data Using a Bar Graph
• Represent Data Using a Pie Chart
• Represent Data Using a Line Graph

Day 6- Relating Coordinates of Points
• Building Tables from Graphs
• Relating Graphs and Formulas

Day 7- Equations of Lines
• Comparing Lines
• Discover the Form of a Linear Equation

Day 8- Slopes and Intercepts
• Visualize and Calculate the Slope of a Line
• Calculate the Vertical Intercept

Day 9- Line Applications
• Solve Word Problems
• Solve Linear Systems

Day 10- Graphs and Equations of Circles
• Describe Circles
• Graph and Name Points

* This is a general outline for the camp. Teachers try to adhere to this but may alter their schedule based on the pace and abilities of the class.