MB3 Beginner Learning Objectives

- Students will be able to solve general math problems using the order of operations, scientific notation, area, perimeter, volume, sequences, and factoring.
- Students will be able to solve problems involving percents and fractions, including converting between them.
- Students will learn about different measures of centers in data and ways of representing data in plots.
- Students will learn to use the Pythagorean Theorem to find missing side lengths of right triangles.
- Students will learn to use the equation distance = rate * time and apply this to different real world situations.
- Students will learn to find the surface area and volume of various 3D shapes.
- Students will learn to apply different concepts in number theory such as divisibility rules and prime numbers.
- Students will learn to use proportional reasoning and relationships to solve word problems.
- Students will learn about applications of sequences and series, both arithmetic and geometric, in real world problems.
- Students will learn about distinguishing algebraic expressions and equations.
- Students will learn about different principles of probability, counting, and combinatorics, including the Basic Counting Principle and Independent Events.
- Students will learn about different aspects of coordinate and plane geometry, including finding distance, arena and midpoints.
- Students will have practice in solving problems from past MathCounts Countdown rounds.