# **7th Grade Math Essential Skills and Concepts**



# I Can...

## **Ratios and Proportional Relationships**

- identify constant of proportionality in tables, graphs, equations, diagrams, and verbal descriptions of proportional relationships.
- represent and explain proportional relationships in equations.
- use proportional relationships to solve real world problems.

### The Number System

• solve mathematical and real-world problems using rational numbers.

### **Expressions and Equations**

- add, subtract, factor, and expand linear expressions with rational coefficients.
- use properties to simplify expressions.
- solve two-step equations.
- solve two-step inequalities.
- graph an inequality.

### **Geometry**

- find the area and circumference of a circle.
- explain the relationship between circumference and area.
- write and solve simple equations for an unknown angle by using facts about supplementary, complementary, vertical, and adjacent angles.
- solve real world geometric problems by using area, volume, and surface area of two and three dimensional shapes.