Grade 7 Overview

Ratios and Proportional Relationships

- **Analyze proportional relationships and use them to solve real-world and mathematical problems.**

The Number System

- **Apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers.**

Expressions and Equations

- **Use properties of operations to generate equivalent expressions.**
- **Solve real-life and mathematical problems using numerical and algebraic expressions and equations.**

Geometry

- **Draw, construct and describe geometrical figures and describe the relationships between them.**
- **Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.**

Statistics and Probability

- **Use random sampling to draw inferences about a population.**
- **Draw informal comparative inferences about two populations.**
- **Investigate chance processes and develop, use, and evaluate probability models.**

Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Ratios and Proportional Relationships 7.RP

Analyze proportional relationships and use them to solve real-world and mathematical problems.

1. C e a e a c a ed a f f ac , c d g a f e g , a ea a d e a e ea ed e

b. U de a d a ege ca be d ded, ded a e d e , a d e e e f ege (- e d) a a a be . If p a d q a e ege , e $(p/q) = (p)/q = p/(q)$. I e e e f a a be b de c b g ea - d c e .

c. A e f a a a eg e a d d de a a be .

d. C e a a a be a dec a g g d ; a e dec a f f a a a be e a e 0 e e a e a .

3. S e ea - d a d a e a ca be g e f a a a be .[1]

Expressions and Equations 7.EE

Use properties of operations to generate equivalent expressions.

1. A e f a a a eg e add, b ac , fac , a d e d ea e a a c ef c e .
2. U de a d a e g a e d ffe e f a be c e ca ed g e be a d e a e a e e a ed. *For example, a + 0.05a = 1.05a means that "increase by 5%" is the same as "multiply by 1.05."*

Solve real-life and mathematical problems using numerical and algebraic expressions and equations.

[illegible]