Math Final Exam Study Guide

Grade: 7

Topic 1 - Rational Number Operations

1-1 Relate Integers and Their Opposites (Pages 9 to 14)

- Understand how integers, their opposites, and absolute values are related
- Apply this understanding to models (number lines) and use these to solve real-world problems

1-2 Understand Rational Numbers (Pages 15 to 20)

- Identify rational numbers
- Convert rational numbers expressed as fractions to terminating or repeating decimals

1-3 Add Integers (Pages 21 to 26)

- Positive and negative integers
- Model integer addition in real-life applications

1-4 Subtract Integers (Pages 27 to 32)

- Understand subtraction of integers as adding the additive inverse, $p-q=p+(-q)$
- Use addition and subtraction rules to solve real-world problems

1-5 Add and Subtract Rational Numbers (Pages 33 to 38)

- Add and subtract positive and negative rational numbers
- Use number lines to model addition and subtraction as a movement or distance between rational numbers

1-6 Multiply Integers (Pages 41 to 46)

- Multiply positive and negative integers
- Use models and mathematical properties to develop a deep understanding of and fluency with multiplying integers

1-7 Multiply Rational Numbers (Pages 47 to 52)

- Multiply with rational numbers
- Apply operations with rational numbers to real-world contexts

1-8 Divide Integers (Pages 53 to 58)

-Use the relationship between multiplication and division to divide integers

- Determine which quotients of integers are equivalent

1-9 Divide Rational Numbers (Pages 59 - 64)

- Apply the knowledge of multiplying and dividing integers to dividing rational numbers

Topic 2 - Analyze and Use Proportional Relationships

2-1 Connect Ratios, Rates and Unit Rates (Pages 89 - 94)

-Use Ratios and Rates to describe the relationship between two quantities

-Find Equivalent Ratios and use unit rates to solve multi-step problems

2-2 Determine Unit Rates with Ratios of Fractions (Pages 95 - 100)

-Find Unit rates with Ratios of Fractions

-Use Unit Rates to solve multi-step problems

2-3 Understand Proportional Relationships (Pages 101 - 106)

-Determine whether quantities are proportional by looking for equivalent ratios

2-4 Describe Proportional Relationships : Constant of proportionality (Pages 107 -112)

-Use the constant of proportionality to write equations that represent proportional relationships

-Use equations to solve problems involving proportional relationships

2-5 Graph Proportional Relationships (Pages 119 - 124)

-Use a graph to recognize proportionality

-Identify a constant of proportionality from a graph

❖ **Note**

A Revision worksheet will be provided before the exam that will include all types of questions to expect on the Final Exam.

❖ **Please Review**

- All the problems done in-class and assigned as homework
- Worksheets
- Quizzes
- Additional Practice on Savvas

Good Luck!