

The final exam is cumulative and will thus be a summary of all the major concepts in the course.

So in addition to using the outlines for tests 1 and 2, think about how the concepts are connected. For example, in reviewing mental math and estimation, think about the general principles and techniques as they would be applied to all the types of numbers we have used: whole numbers, integers, fractions, %, & decimals.

Chapter 9 is a summary of many of the properties that we have studied in chapter 3 with whole numbers, in chapter 6 with elementary fractions, in chapter 7 with decimals, in chapter 8 with integers and finally in chapter 9 with rational and irrational numbers. For example, consider the concept of closure and which of the sets are closed for subtraction, or division and why.

Chapter 8 Integers

Section 1 Addition & subtraction of integers. Be able to illustrate with sets and number line.

Section 2 Multiplication and division of integers. Be able to illustrate with sets, number line, and number patterns. Study the concepts on negative exponents & scientific notation; do the homework problems on exponents and scientific notation.

Chapter 9 Rational, irrational, and real numbers

Section 1 Definition and summary of properties of rational numbers. Be able to define and give examples of rational numbers, including whole numbers and integers.

Section 2 Definition and summary of properties of irrational and real numbers. Be able to define and give examples of irrational numbers. Irrational numbers cannot be written as the ratio of two integers.

As decimals, irrational numbers will be infinite and non-repeating.

Be able to draw a Venn diagram that shows the relationships between the sets of numbers we studied in chapters 3-9.

Also includes understanding rational exponents, solving equations and inequalities.

Do homework problems on these concepts.