**Lesson 26 Notes: Irrational and Real Numbers**

**Sets of Numbers:**

Natural

Whole

Integers

Rational

Irrational

Real

**Draw a Venn Diagram** to represent these sets of numbers:

For fractions, how do you know if the fraction terminates or repeats?

For decimals, how do you know if the decimal is actually a rational number?

Give examples of decimals that terminate but are still a rational number.

Give examples of decimals that repeat but are still a rational number.

**Example A:** Identify the set(s) of numbers to which each given number belongs. Use the letters N, W, Z, Q, I and R.

-12

.23

130

**PROPERTIES OF REAL NUMBERS**

1. Closure Property for Addition
2. Closure Property for Multiplication
3. Commutative Property for Addition
4. Commutative Property for Multiplication

1. Associative Property for Addition
2. Associative Property for Multiplication
3. Identity Property for Addition
4. Identity Property for Multiplication
5. Inverse Property for Addition
6. Inverse Property for Multiplication

11. Distributive Property of Multiplication over Addition