Notes 2.1

**Vocabulary:**

**Natural or Counting Numbers:** 1, 2, 3, 4, …

**Whole numbers:** 0, 1, 2, 3, …

**Integers:** …, -2, -1, 0, 1, 2, ….

**Rational Numbers:** Integers and anything that can be written as a fraction without a 0 in the denominator ($\frac{3}{4})$, and repeating or terminating decimals (0.123, 0.12121212….).

**Irrational Numbers:** square roots or other roots ($\sqrt{2},∛13)$, nonterminating decimals ( 0.12345678…), e, π

**Real Numbers:** All of these numbers

Example 1: Graph and compare integers



Example 2: What is not a rational number?

1. $\frac{1}{2}$ b. 0.8888…. c. 0.356298…. d. -4

Example 3:



**Opposite Numbers:**

Example 4: What is the opposite if a = -4.7?

 4.7

 What is the opposite if a = $-\frac{2}{5}$ ?

 $\frac{2}{5}$

Absolute Value: 

Example: |121| = 121, |-121| = 121 Absolute value signs are like a laundry machine. Think of a negative sign as dirt!

**Conditional Statement:** (If-then statements)---it has a hypothesis and a conclusion.

If I go out in the rain, then I will get wet.

Hypothesis Conclusion

**Counterexamples:** If a conditional statement has one false example of the conclusion, then it’s false.

What if I’m wearing water proof rain gear? I won’t get wet, but my rain gear will.