

Unit 1.1 Test

- Rational, Integers, Whole, Natural, Irrational
- Adding, Subtracting, Multiply, Divide
- Real World Applications



a) -5

b) 2.1

c) $4.\overline{89}$

d) 4

~~e) 6.970313...~~

f) $\frac{1}{5}$

~~g) $\sqrt{17}$~~

e) 10.1313...



Todays Notes

Foundations of Algebra

Unit1: Number Sense & Quantity

Notes

Unit 1: Number Sense & Quantity

Learning Goal #1.2: Operations & Reasoning with Fractions

After completion of this learning Goal, you will be able to...

- Add, Subtract, Multiply, and Divide Fractions using Models and Algorithms
- Simplify fractions
- Estimate fractions on a Number line
- Convert between mixed and improper fractions
- Compare fractions and integers

Timeline for Unit 1

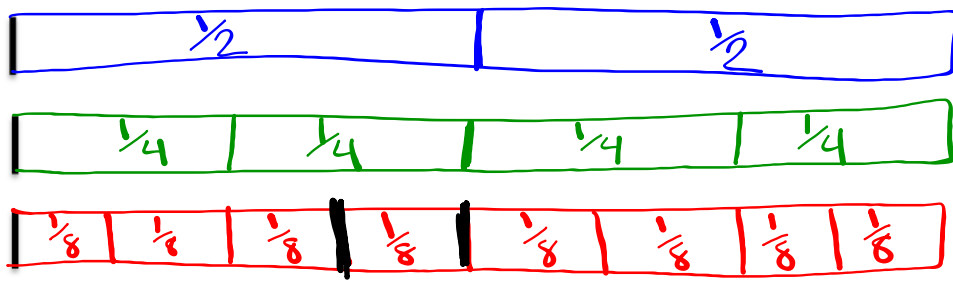
Monday	Tuesday	Wednesday	Thursday	Friday
5 th Day 1 Adding Integers and Real Numbers	6 th Day 2 Subtracting, Multiply, Divide Integers	7 th Day 3 Real World Applications	8 th Day 4 1.1 Learning Goal assessment; Intro to fractions	9 th Day 5 Fractions on a Number Line, Simplifyfing & Converting Fractions
12 th Day 6 Estimating, Comparing, & Benchmark Fractions	13 th Day 7 Adding and Subtracting Fractions	14 th Day 8 Multiplying and Dividing Fractions	15 th Day 9 1.2 Assessment; Place Value & Rounding	16 th Day 10 Comparing and Real World Applications with Decimals
19 th Day 11 Multiplying and Dividing by Powers of 10	20 th Day 12 1.3 Assessment; Intro to Percents	21 th Day 13 Percents on a Number Line	22 th Day 14 Percents of a Number EquationS	23 rd Day 15 1.4 Assessment

	Monday	Tuesday	Wednesday	Thursday	Friday
AM	NONE	NONE	Mr. Webb 7:45 – 8:15 Room 1205	Mr. Watson 7:45 – 8:15 Room 1208	Mr. Watson 7:45 – 8:15 Room 1208
PM	Mrs. Petersen 3:30 – 4:30 Room 1210	Mr. Webb 3:30 – 4:30 Room 1205	Mrs. Jackson 3:30 – 4:30 Room 1210	Mrs. Jackson 3:30 – 4:30 Room 1210	NONE

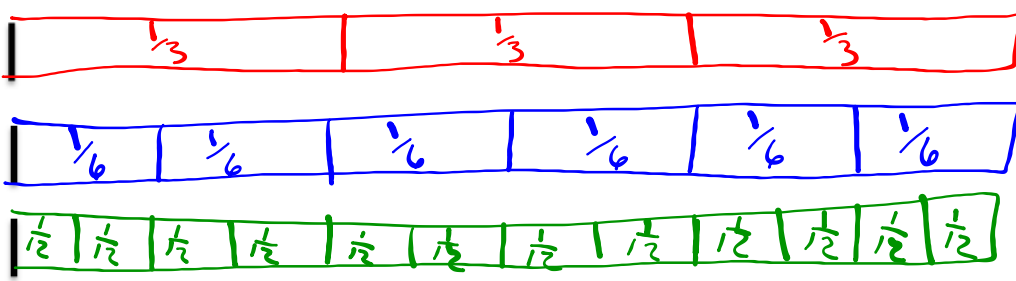
Day 4: Fractions on a Number Line

To understand how fraction works on a number line, we are going to create three different number lines:

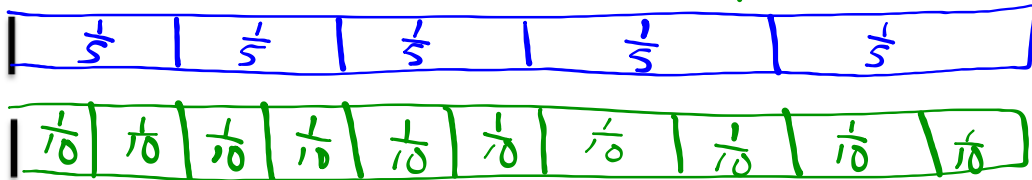
1st Number Line: $\frac{1}{2}$ half # line (Make your line 16 cm long)
 1st Color: Divide your number line into two equal parts. What fraction is this? $\frac{1}{2}$
 2nd Color: Divide your two halves in half again. What fraction is this? $\frac{1}{4}$
 3rd Color: Divide your four halves in half again. What fraction is this? $\frac{1}{8}$



2nd Number Line: $\frac{1}{3}$ red # line (Make your line 12 cm long)
 1st Color: Divide your number line into three equal parts. What fraction is this? $\frac{1}{3}$
 2nd Color: Divide your three pieces in half. What fraction is this? $\frac{1}{6}$
 3rd Color: Divide your three pieces in half again. What fraction is this? $\frac{1}{12}$



3rd Number Line: $\frac{1}{5}$ # line (Make your line 15 cm long)
 1st Color: Divide your number line into five equal parts. What fraction is this? $\frac{1}{5}$
 2nd Color: Divide your five pieces in half. What fraction is this? $\frac{1}{10}$



Foundations of Algebra

Unit I: Number Sense & Quantity

Notes

Analyze: Answer the following questions below:

1. **Unit Fractions** are fractions that have a numerator of 1 and a denominator that is a positive integer. List your unit fractions from the previous page in descending (biggest to smallest) order.

2. As the denominator gets bigger, the fraction is getting _____.

3. What does the denominator of the unit fraction tell you?

4. Create another number line that is 10 cm long. Place your unit fractions on the number line.



5. Name the following fractions that are equivalent to the following unit fractions:

a. $\frac{1}{2}$ _____

b. $\frac{1}{3}$ _____

c. $\frac{1}{4}$ _____

d. $\frac{1}{5}$ _____

e. $\frac{1}{6}$ _____

f. $\frac{2}{3}$ _____

g. $\frac{3}{4}$ _____

h. 1 _____

6. What do you notice about the numerator and denominator of the equivalent fractions?

7. Create two additional equivalent fractions for the following:

a. $\frac{5}{6}$

b. $\frac{2}{5}$

c. $\frac{3}{8}$