

Howdy!!!!

Coach Watson

FOA

Find your seat

*Pencil

$\frac{5}{6} + \frac{2}{3}$ $\frac{5}{6} + \frac{4}{6} = \frac{9}{6}$ $= \frac{3}{2}$	$\frac{5}{6} - \frac{2}{3}$ $\frac{5}{6} - \frac{4}{6} = \frac{1}{6}$
$\frac{5}{6} \times \frac{2}{3} = \frac{10}{18}$ $= \frac{5}{9}$	$\frac{5}{6} \div \frac{2}{3}$ $\frac{5}{6} \times \frac{3}{2} = \frac{15}{12}$ $= \frac{5}{4}$

Name : _____



0:09:53



Teacher : _____



Mixed Problems with Fractions

1) $\frac{1}{4} - \frac{1}{7} =$

2) $\frac{2}{3} \times \frac{1}{6} =$

3) $\frac{3}{10} + \frac{2}{3} =$

4) $\frac{1}{2} \times \frac{1}{3} =$

5) $\frac{3}{9} \div \frac{1}{8} =$

6) $\frac{4}{7} + \frac{5}{9} =$

7) $\frac{2}{8} \div \frac{1}{3} =$

8) $\frac{2}{8} \div \frac{4}{6} =$

9) $\frac{3}{7} \times \frac{2}{3} =$

10) $\frac{6}{8} - \frac{4}{7} =$

11) $\frac{7}{10} - \frac{2}{7} =$

12) $\frac{1}{2} + \frac{3}{7} =$



Name : _____ Score : _____

Teacher : _____ Date : _____

Mixed Problems with Fractions

1) $\frac{1}{4} - \frac{1}{7} =$ $\frac{7}{28} - \frac{4}{28} =$

$\frac{3}{28}$

2) $\frac{2}{3} \times \frac{1}{6} =$ $\frac{2 \times 1}{3 \times 6} =$ $\frac{2}{18} =$

$\frac{1}{9}$

3) $\frac{3}{10} + \frac{2}{3} =$ $\frac{9}{30} + \frac{20}{30} =$

$\frac{29}{30}$

4) $\frac{1}{2} \times \frac{1}{3} =$ $\frac{1 \times 1}{2 \times 3} =$

$\frac{1}{6}$

5) $\frac{3}{9} \div \frac{1}{8} =$ $\frac{3 \times 8}{9 \times 1} =$ $\frac{24}{9} =$

$\frac{8}{3} =$

$2\frac{2}{3}$

6) $\frac{4}{7} + \frac{5}{9} =$ $\frac{36}{63} + \frac{35}{63} =$

$\frac{71}{63} =$

$1\frac{8}{63}$

7) $\frac{2}{8} \div \frac{1}{3} =$ $\frac{2 \times 3}{8 \times 1} =$

$\frac{6}{8} =$

$\frac{3}{4}$

8) $\frac{2}{8} \div \frac{4}{6} =$ $\frac{2 \times 6}{8 \times 4} =$

$\frac{12}{32} =$

$\frac{3}{8}$

9) $\frac{3}{7} \times \frac{2}{3} =$ $\frac{3 \times 2}{7 \times 3} =$

$\frac{6}{21} =$

$\frac{2}{7}$

10) $\frac{6}{8} - \frac{4}{7} =$ $\frac{42}{56} - \frac{32}{56} =$

$\frac{10}{56} =$

$\frac{5}{28}$

11) $\frac{7}{10} - \frac{2}{7} =$ $\frac{49}{70} - \frac{20}{70} =$

$\frac{29}{70}$

12) $\frac{1}{2} + \frac{3}{7} =$ $\frac{7}{14} + \frac{6}{14} =$

$\frac{13}{14}$



Unit Review Guide





Todays Notes

Foundations of Algebra

Unit: Number Sense & Quantity

Notes

Unit 1: Number Sense & Quantity

Learning Goal #1.4: Intro to Percents

AFTER COMPLETION OF THIS UNIT, YOU WILL BE ABLE TO...

- EXPLAIN THE SIMILARITIES AND DIFFERENCES BETWEEN PERCENTS, FRACTIONS, AND DECIMALS
- CONVERT BETWEEN FRACTIONS, DECIMALS, AND PERCENTS
- USE MENTAL MATH TO CALCULATE PERCENTS
- DETERMINE THE PART, WHOLE, OR PERCENT OF A NUMBER
- APPLY PERCENTS TO REAL WORLD PROBLEMS (TAX, TIP, DISCOUNTS)

TIMELINE FOR UNIT 1

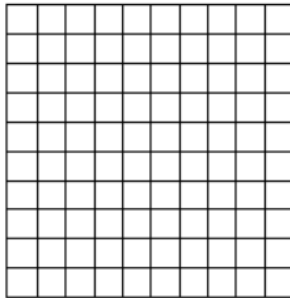
MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
		1 st INTRO & SYLLABUS DAY	2 nd DAY 1 THE REAL NUMBER SYSTEM & ADDING INTEGERS	3 rd DAY 2 SUBTRACTING, MULTIPLYING, & DIVIDING INTEGERS
6 th DAY 3 REAL WORLD APPLICATIONS	7 th DAY 4 1.1 LEARNING GOAL ASSESSMENT; INTRO TO FRACTIONS	8 th DAY 5 FRACTIONS ON A NUMBER LINE, SIMPLIFYING & CONVERTING FRACTIONS	9 th DAY 6 ESTIMATING, COMPARING, & BENCHMARK FRACTIONS	10 th DAY 7 ADDING AND SUBTRACTING FRACTIONS
13 th DAY 8 MULTIPLYING FRACTIONS	14 th DAY 9 DIVIDING FRACTIONS	15 th DAY 10 1.2 ASSESSMENT; PLACE VALUE & ROUNDING	16 th DAY 11 COMPARING AND REAL WORLD APPLICATIONS WITH DECIMALS	17 th DAY 12 MULTIPLYING AND DIVIDING BY POWERS OF 10
20 th DAY 13 1.3 ASSESSMENT; INTRO TO PERCENTS	21 st DAY 14 PERCENTS ON A NUMBER LINE	22 nd DAY 15 PERCENTS OF A NUMBER EQUATIONS	23 rd DAY 16 1.4 ASSESSMENT	

Foundations of Algebra Tutoring Schedule

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

Day 13: Introduction to Percents

Robb's Fruit Farm consists of 100 acres on which three different types of apples grow. On 25 acres, the farm grows Honeycrisp apples. McIntosh apples grow on 30% of the farm. The remainder of the farm grows Fuji apples. Shade in the grid below to represent the portion of the farm each type of apple occupies.



Type	Color	Fraction	Decimal	Percent
Honeycrisp				
McIntosh				
Fuji				

Percents, fractions, and decimals can be used interchangeably. Percents are fractions that are out of 100. Percent is also another name for hundredths. The percent symbol “%” means out of 100. Percents are also considered ratios.

Percents

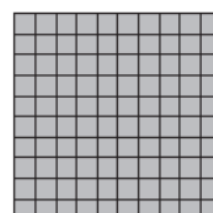
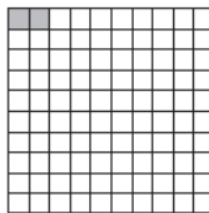
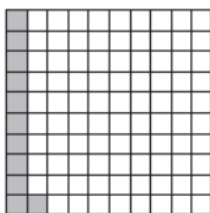
35% means 35 out of 100.

35% as a fraction is $\frac{35}{100}$.

35% as a decimal is 0.35.

35% as a ratio is 35 to 100 or 35:100.

a. Represent each hundredth grid as a percent, fraction, and decimal.



Converting Between Decimals, Percents, & Fractions

Percents to Decimals:

- a. 13% b. 6% c. 90% d. 125%

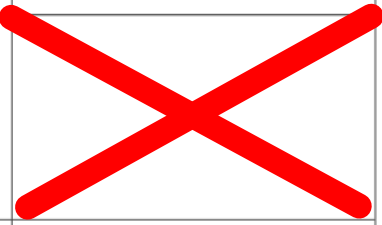
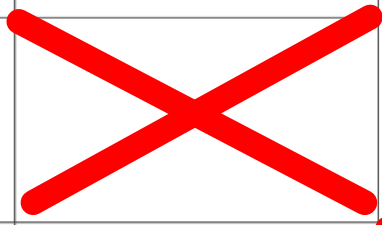
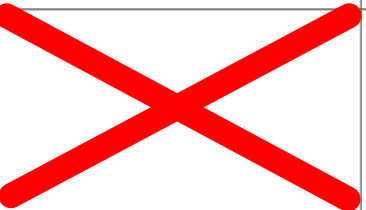
Decimals to Percents:

- a. 0.4 b. 0.32 c. 0.8427 d. 3.26

Fractions to Percents:

- a. $\frac{4}{5}$ b. $\frac{3}{8}$ **.375** c. $\frac{3}{10}$ d. $\frac{1}{3}$

Graphic Organizer for Converting Between Percents, Decimals, & Fractions

	Fraction	Decimal	Percent
Percent	Write the percent as a fraction with a denominator of 100.	Move the decimal point two places to the left and remove the % sign.	
Fraction		Divide the numerator by the denominator.	Use division to write the fraction as a decimal, and then convert to a percent (Move decimal two points to the right)
Decimal	Write the decimal as a fraction with a denominator of 10, 100, or 1000.		Move the decimal point two places to the right and add the % sign.

Comparing Fractions, Decimals, and Percents

Common Equivalent Fractions, Decimals, and Percents									
Fraction	$\frac{1}{5}$	$\frac{1}{4}$	$\frac{1}{3}$	$\frac{2}{5}$	$\frac{1}{2}$	$\frac{3}{5}$	$\frac{2}{3}$	$\frac{3}{4}$	$\frac{4}{5}$
Decimal	0.2	0.25	$0.33\bar{3}$	0.4	0.5	0.6	$0.66\bar{6}$	0.75	0.8
Percent	20%	25%	$33\frac{1}{3}\%$	40%	50%	60%	$66\frac{2}{3}\%$	75%	80%

When comparing fractions, decimals, and percents, it is important to convert each number to the same form. Knowing your decimal fractions and important, common fractions will be extremely helpful! Most students prefer to convert everything to decimals in order to compare.

a. 25%, $\frac{1}{5}$, 0.33, 45%, $\frac{7}{10}$, 66%

b. $\frac{8}{100}$, 0.8, 0.8%, $\frac{88}{100}$, 18%, 8

Additional Practice

Foundations of Algebra

Unit 2: Complex Number Systems

Practice

Day 13: Percents, Fractions, & Decimals

Name: _____

Practice Assignment**0 25 50 75 100**

1. For each number below, write it in fraction, decimal, AND percent form:

a. 4%

b. 0.09

c. $\frac{11}{20}$

d. 130%

e. 2.25

f. $\frac{3}{5}$ g. $\frac{11}{20}$

h. 0.5%

i. $\frac{2}{3}$

2. Avery got 18 out of 20 questions right on his math test. What percent of the questions did he get correct?

3. Sienna is practicing her free throw shots. She made 17 out of 25 free throw shots. What percent of the shots did she make?

4. Using your knowledge of percents, fractions, and decimals, order the following numbers in order from least to greatest **WITHOUT a calculator**. (Hint: think of benchmark fractions and converting percents to decimals).

a.

0.35, $\frac{1}{4}$, 28%, $\frac{8}{9}$

b.

 $\frac{25}{8}$, 131%, 0.9, 1.1

c.

 $\frac{7}{8}$, 0.1, 65%, 1.5

Foundations of Algebra

Unit 2: Complex Number Systems

Practice

5. The table shows the portions of the day that several animals sleep.

a. Order the animals by sleep time from least to greatest.

b. Estimate the portion of the day you sleep.

c. Where do you fit on the ordered list?



Animal	Portion of Day Sleeping
Dolphin	0.433
Lion	56.3%
Rabbit	$\frac{19}{40}$
Squirrel	$\frac{31}{50}$
Tiger	65.8%

6. The map shows the portions of the population of Florida that live in five counties. List the five counties in order, by population, from least to greatest.



7. Tell what whole number you can substitute for a in each list so the numbers are ordered from least to greatest.

a. $\frac{2}{a}, \frac{a}{22}, 33\%$

b. $\frac{1}{a}, \frac{a}{8}, 33\%$