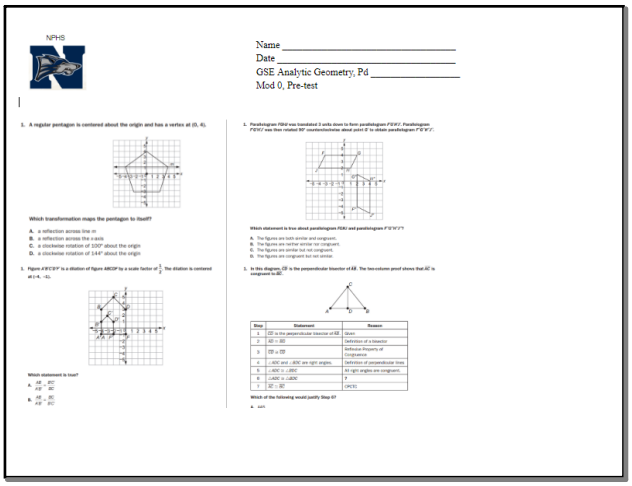
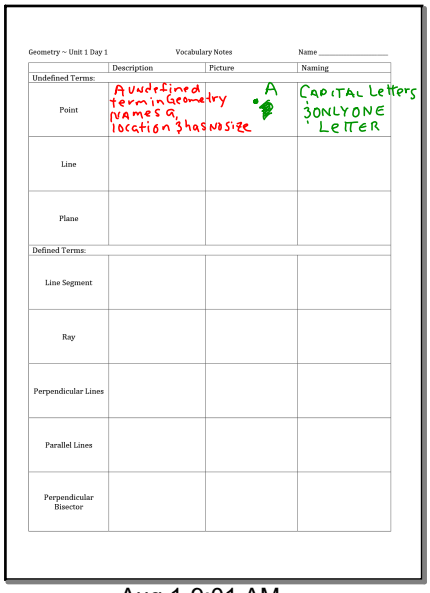

NPHS

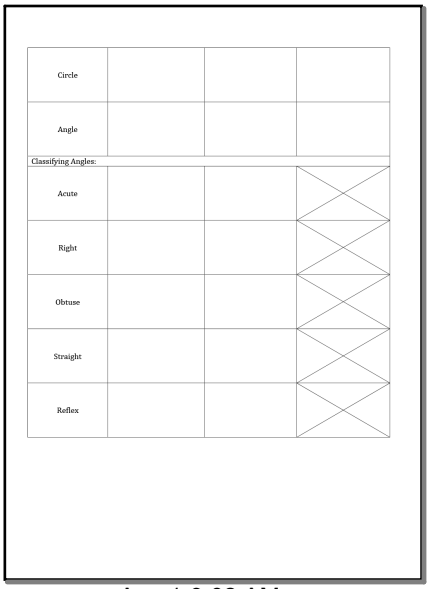
Name _____
Date _____
GSE Analytic Geometry, Pd _____
Mod 0, Pre-test

Aug 1-8:59 AM


Geometry ~ Unit 1 Day 1 Vocabulary Notes Name _____

	Description	Picture	Naming
Undefined Terms:			
Point	A undefined term in Geometry names a location & has no size.	A •	Capital Letters ONLY ONE LETTER
Line			
Plane			
Defined Terms:			
Line Segment			
Ray			
Perpendicular Lines			
Parallel Lines			
Perpendicular Bisector			

Aug 1-9:01 AM



Circle			
Angle			
Classifying Angles:			
Acute			
Right			
Obtuse			
Straight			
Reflex			

Aug 1-9:02 AM

Get a notebook - this is your cheat book...

HO Rational Numbers

Explore Weebly

sign up for Remind

look at some resources on Remind

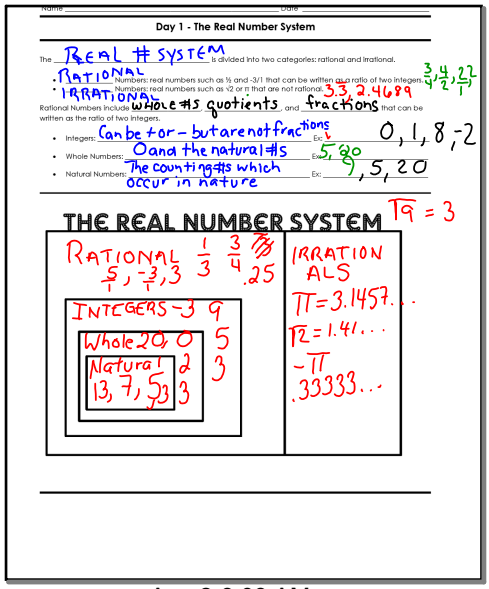
Aug 1-9:04 AM

First entry in our 'cheat notebook.'

Order these numbers from leaast to greatest

70, -4, 0.3, sqrt(9), 2/3

Aug 2-9:12 AM


Name _____ Date _____

Day 1 - The Real Number System

The Real # System is divided into two categories: rational and irrational.

- Rational Numbers: real numbers such as ½ and -3/1 that can be written as a ratio of two integers. 3, 4/2, 22/1
- Irrational Numbers: real numbers such as √2 or π that are not rational. 3.3, 2.4689

Rational Numbers include whole #s, quotients and fractions that can be written as the ratio of two integers.

- Integers: can be + or − but are not fractions Ex: 0, 1, 8, -2
- Whole Numbers: 0 and the natural #s Ex: 580, 9, 5, 20
- Natural Numbers: The counting #s which occur in nature

THE REAL NUMBER SYSTEM

√9 = 3

RATIONAL 1/3, 3/4, .25, 5/1, -3/1, 3

INTEGERS -3, 9

Whole 20, 0, 5

Natural 13, 7, 5, 3, 2, 3

IRRATIONALS

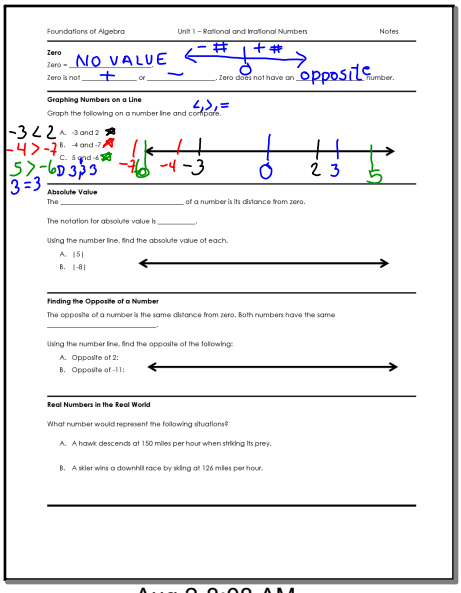
π = 3.1457...

√2 = 1.41...

-π

.33333...

Aug 2-8:08 AM



Foundations of Algebra Unit 1 – Rational and Irrational Numbers Notes

Zero

Zero = NO VALUE

Zero is not + or −. Zero does not have an opposite number.

Graphing Numbers on a Line

Graph the following on a number line and compare.

A. -3 and 2

B. -4 and -7

C. 5 and -6

Absolute Value

The _____ of a number is its distance from zero.

The notation for absolute value is _____.

Using the number line, find the absolute value of each.

A. |5|

B. |-8|

Finding the Opposite of a Number

The opposite of a number is the same distance from zero. Both numbers have the same _____.

Using the number line, find the opposite of the following:

A. Opposite of 2:

B. Opposite of -11:

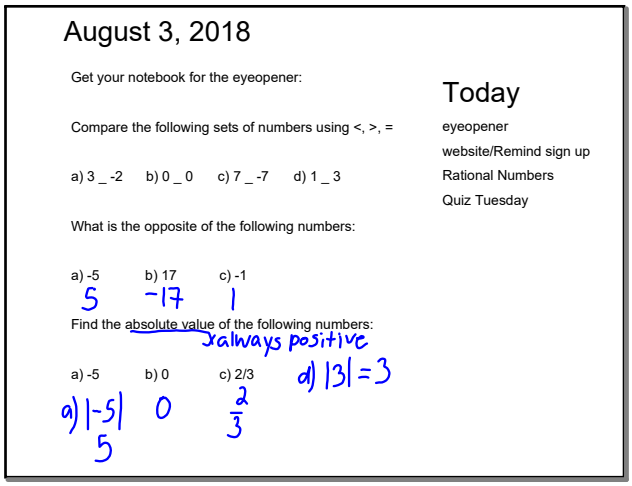
Real Numbers in the Real World

What number would represent the following situations?

A. A hawk descends at 150 miles per hour when striking its prey.

B. A skier wins a downhill race by skiing at 126 miles per hour.

Aug 2-8:08 AM



August 3, 2018

Get your notebook for the eyeopener:

Compare the following sets of numbers using <, >, =

a) 3 _ -2 b) 0 _ 0 c) 7 _ -7 d) 1 _ 3

What is the opposite of the following numbers:

a) -5 b) 17 c) -1

Find the absolute value of the following numbers:

always positive

a) -5 b) 0 c) 2/3 d) |3| = 3

Today

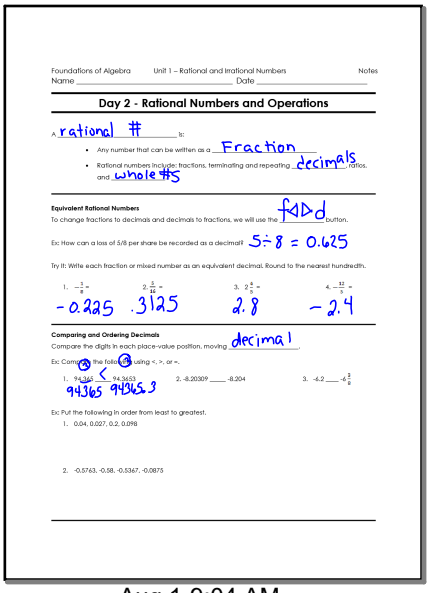
eyeopener

website/Remind sign up

Rational Numbers

Quiz Tuesday

Aug 3-7:52 AM



Foundations of Algebra Unit 1 – Rational and Irrational Numbers Notes

Name _____ Date _____

Day 2 - Rational Numbers and Operations

A rational # is:

- Any number that can be written as a Fraction
- Rational numbers include fractions, terminating and repeating decimals, ratios, and whole #s

Equivalent Rational Numbers

To change fractions to decimals and decimals to fractions, we will use the fold button.

Ex: How can a loss of 5/8 per share be recorded as a decimal? 5÷8 = 0.625

Try It: Write each fraction or mixed number as an equivalent decimal. Round to the nearest hundredth.

1. $-\frac{3}{8}$ = -0.225 2. $\frac{5}{16}$ = .3125 3. $2\frac{4}{5}$ = 2.8 4. $-\frac{32}{5}$ = -2.4

Comparing and Ordering Decimals

Compare the digits in each place-value position, moving decimal.

Ex: Compare the following using <, >, or =.

1. 94.365 < 94.3653 2. -8.20309 ___ -8.204 3. -4.2 ___ $-4\frac{1}{6}$

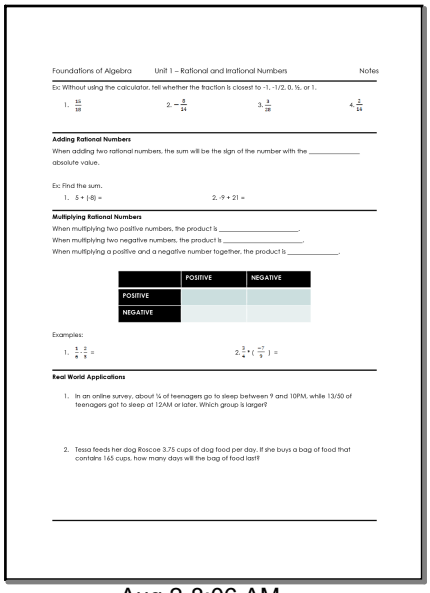
94365 94365 3

Ex: Put the following in order from least to greatest.

1. 0.04, 0.007, 0.2, 0.098

2. -0.5763, -0.58, -0.5367, -0.0875

Aug 1-9:04 AM



Foundations of Algebra Unit 1 – Rational and Irrational Numbers Notes

Ex: Without using the calculator, tell whether the fraction is closest to -1, -1/2, 0, ½, or 1.

1. $\frac{55}{58}$ 2. $-\frac{9}{14}$ 3. $\frac{3}{28}$ 4. $\frac{2}{14}$

Adding Rational Numbers

When adding two rational numbers, the sum will be the sign of the number with the _____ absolute value.

Ex: Find the sum.

1. 5 + |-8| = 2. -9 + 21 =

Multiplying Rational Numbers

When multiplying two positive numbers, the product is _____.

When multiplying two negative numbers, the product is _____.

When multiplying a positive and a negative number together, the product is _____.

	POSITIVE	NEGATIVE
POSITIVE		
NEGATIVE		

Examples:

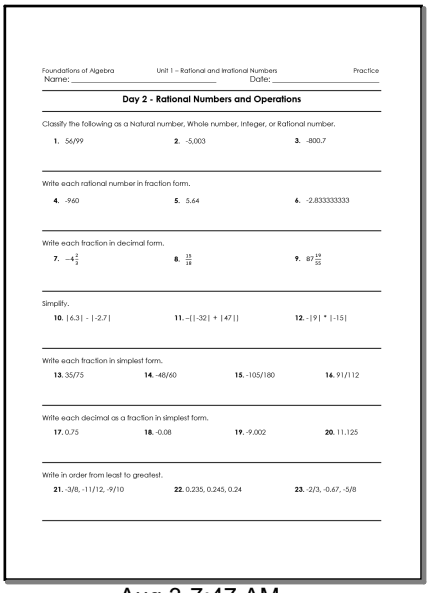
1. $\frac{1}{4} \cdot \frac{2}{5}$ = 2. $\frac{3}{4} \div (-\frac{-7}{3})$ =

Real World Applications

1. In an online survey, about ¼ of teenagers go to sleep between 9 and 10PM, while 13/50 of teenagers got to sleep at 12AM or later. Which group is larger?

2. Tessa feeds her dog Roscoe 3.75 cups of dog food per day. If she buys a bag of food that contains 165 cups, how many days will the bag of food last?

Aug 2-8:06 AM



Foundations of Algebra Unit 1 – Rational and Irrational Numbers Practice

Name: _____ Date: _____

Day 2 - Rational Numbers and Operations

Classify the following as a Natural number, Whole number, Integer, or Rational number.

1. 56/99 2. -5,003 3. -800.7

Write each rational number in fraction form.

4. -960 5. 5.64 6. -2.833333333

Write each fraction in decimal form.

7. $-4\frac{2}{3}$ 8. $\frac{15}{18}$ 9. $87\frac{19}{20}$

Simplify.

10. |6.3| - |-2.7| 11. -(|-32| + |47|) 12. -|9| * |-15|

Write each fraction in simplest form.

13. 35/75 14. -48/60 15. -105/180 16. 91/112

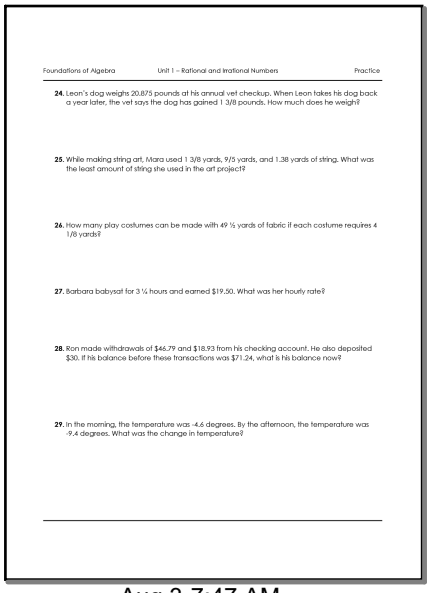
Write each decimal as a fraction in simplest form.

17. 0.75 18. -0.08 19. -9.002 20. 11.125

Write in order from least to greatest.

21. -3/8, -11/12, -9/10 22. 0.235, 0.245, 0.24 23. -2/3, -0.67, -5/8

Aug 3-7:47 AM



Foundations of Algebra Unit 1 – Rational and Irrational Numbers Practice

24. Leon's dog weighs 20.875 pounds at his annual vet checkup. When Leon takes his dog back a year later, the vet says the dog has gained 1 3/8 pounds. How much does he weigh?

25. While making string art, Mara used 1 3/8 yards, 9/5 yards, and 1.38 yards of string. What was the least amount of string she used in the art project?

26. How many play costumes can be made with 49 ½ yards of fabric if each costume requires 4 1/8 yards?

27. Barbara babysat for 3 ¼ hours and earned $19.50. What was her hourly rate?

28. Ron made withdrawals of $46.79 and $18.93 from his checking account. He also deposited $30. If his balance before these transactions was $71.24, what is his balance now?

29. In the morning, the temperature was -4.6 degrees. By the afternoon, the temperature was -9.4 degrees. What was the change in temperature?

Aug 3-7:47 AM