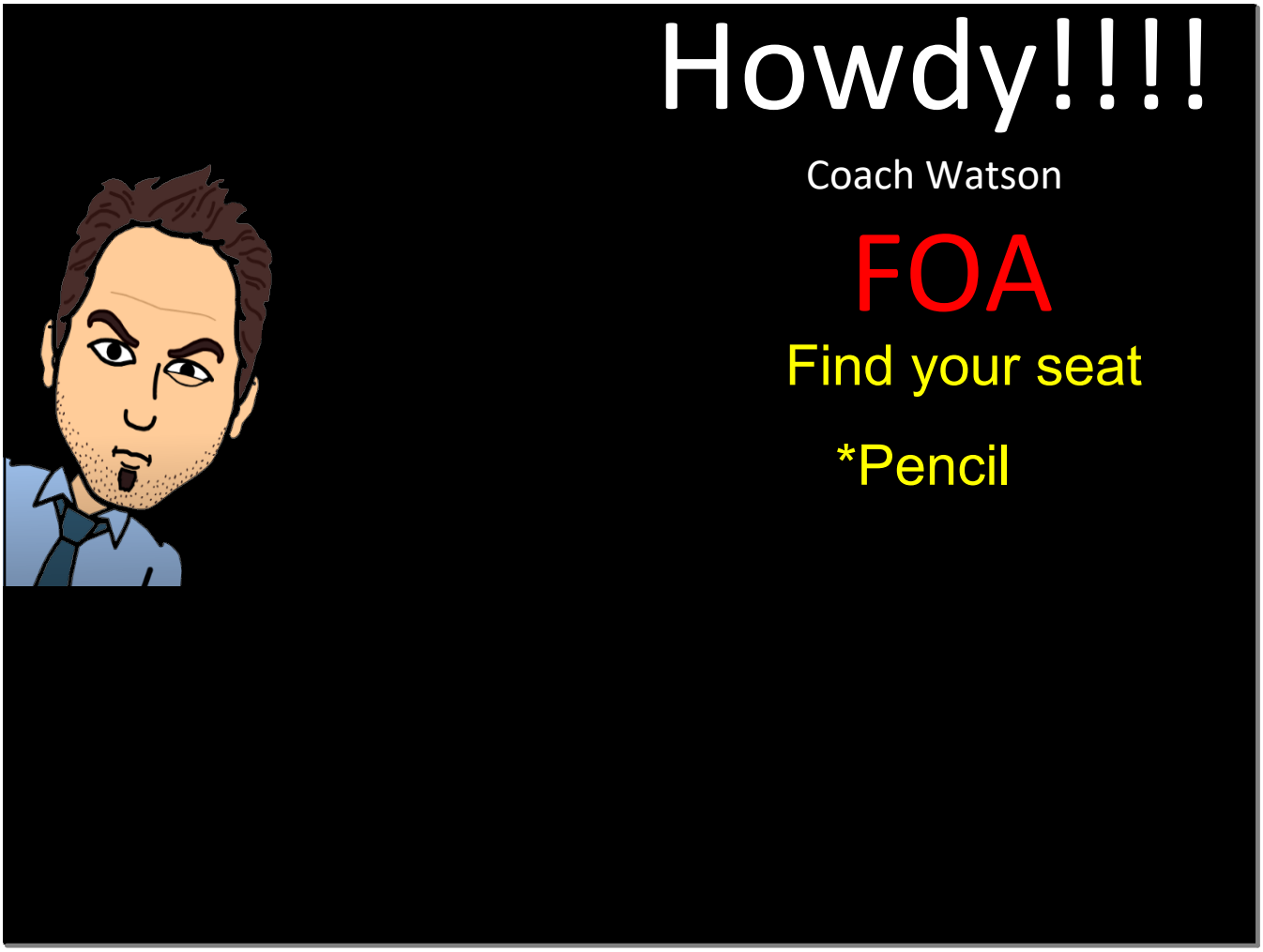
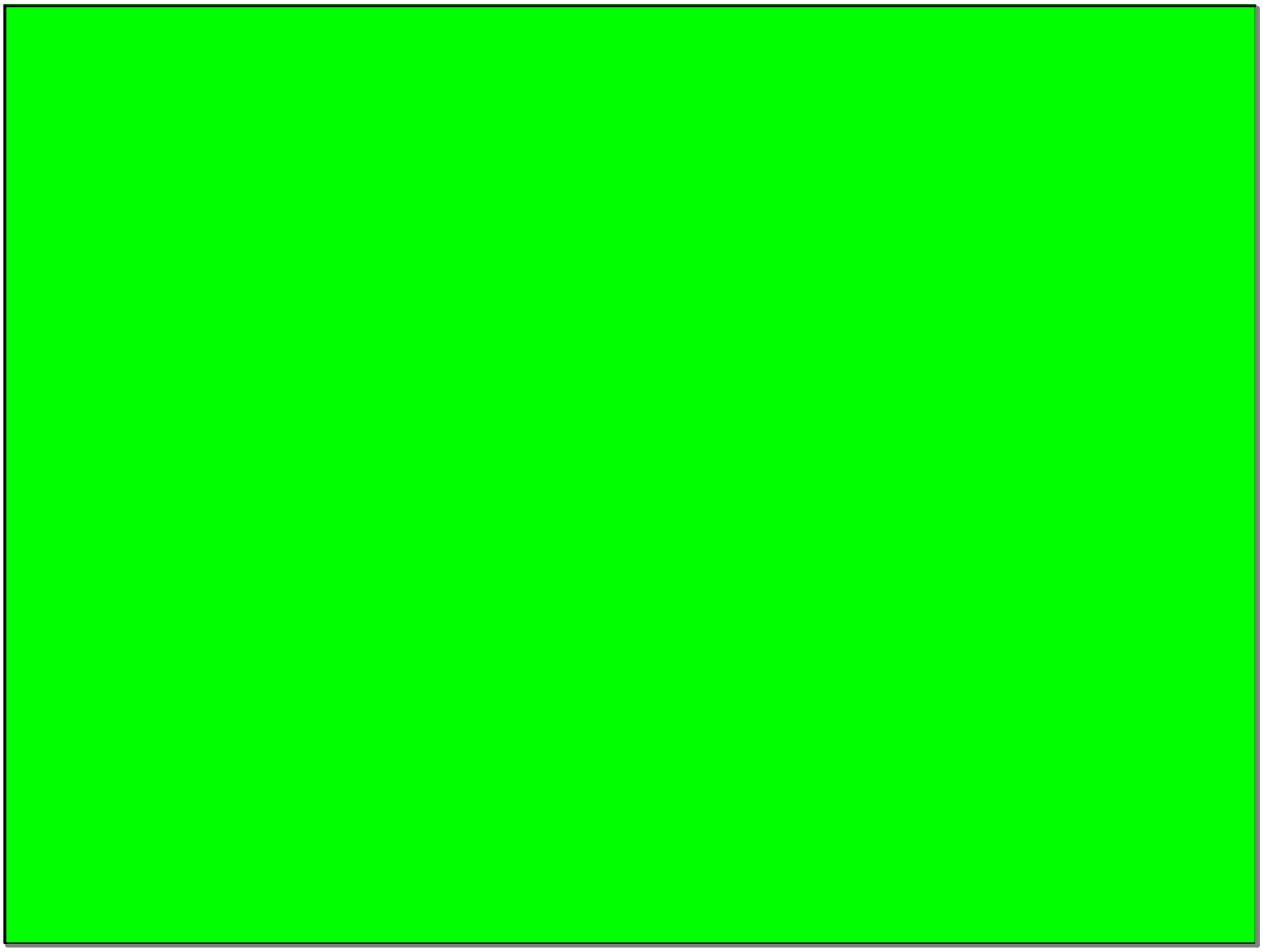


Jan 5-3:51 PM



Aug 15-3:45 PM

Foundations of Algebra | Unit 1: Number Sense & Quantity | Practice

Day 8: Place Value

Practice Assignment

Name: _____

0 25 50 75 100

1. Use the place value chart to answer the following questions. Express the value of the digit in unit (fraction) form.

hundreds	tens	ones	.	tenths	hundredths
8	2	7		6	4

a. The digit 8 is in the hundreds place. It has a value of 800.

b. The digit 2 is in the tens place. It has a value of 20.

c. The digit 6 is in the tenths place. It has a value of .6.

d. The digit 4 is in the hundredths place. It has a value of .04.

hundreds	tens	ones	.	tenths	hundredths
3	4	5		1	9

e. The digit 3 is in the hundreds place. It has a value of 300.

f. The digit 4 is in the tens place. It has a value of 40.

g. The digit 1 is in the tenths place. It has a value of .1.

h. The digit 9 is in the hundredths place. It has a value of .09.

2. Fill in the blank to make the sentence true for both fraction form and decimal form.

a. $\frac{8}{10}$ cm + $\frac{2}{10}$ cm = 1 cm 0.8 cm + .2 cm = 1.0 cm

b. $\frac{2}{10}$ cm + $\frac{8}{10}$ cm = 1 cm 0.2 cm + .8 cm = 1.0 cm

c. $\frac{6}{10}$ cm + $\frac{4}{10}$ cm = 1 cm 0.6 cm + .4 cm = 1.0 cm

3. Write the following decimals in fraction form:

a. 2.6 b. 3.7 c. 4.23 d. 5.67 e. 0.33

$2\frac{6}{10}$ $3\frac{7}{10}$ $4\frac{23}{100}$ $5\frac{67}{100}$ $\frac{33}{100}$

$\frac{26}{10}$ $\frac{37}{10}$ $\frac{423}{100}$ $\frac{567}{100}$

Foundations of Algebra Unit 1: Number Sense & Quantity Practice

4. Write the following fractions in decimal form:

a. $\frac{4}{10}$ b. $\frac{43}{100}$ c. $\frac{45}{10}$ d. $\frac{84}{100}$ e. $\frac{75}{10}$

5. Give the total amount of money in decimal form:

a. 3 dimes and 8 pennies b. 8 dimes and 23 pennies c. 3 quarters, 3 dimes, & 5 pennies

$0.38 $1.03 $1.10

6. Emmanuel has 6 dimes and 2 pennies. Emilio has 1 dollar, 3 dimes, and 5 pennies. Ryan has 5 dollars and 7 pennies. They want to put their money together to buy a game that costs $8.00. Do they have enough money to buy the game? If not, how much more do they need?

0.62
1.35
5.07
$7.04

They need $0.96

7. Taylyn has 7 dollars and 32 cents. Aaliyah has 3 dollars and 4 cents. How much money does Taylyn need to give to Aaliyah so they each have the same amount of money?

$7.32
3.04
$4.28

$\frac{4.28}{2} = 2.14$

8. A pen costs $2.25. A binder costs three times as much. How much does the pen and binder cost in total?

9. **Review -** Classify the following numbers using the most specific classification possible.

a. -6 b. 0 c. 5.67 d. -¼ e. $\sqrt{12}$ f. 4.5201… g. 10

Talk about test!

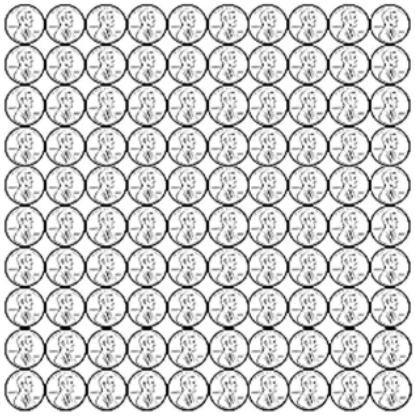
Todays Notes

Jul 30-4:21 PM

Foundations of Algebra | Unit 1: Number Sense & Quantity | Notes

Decimals & Money

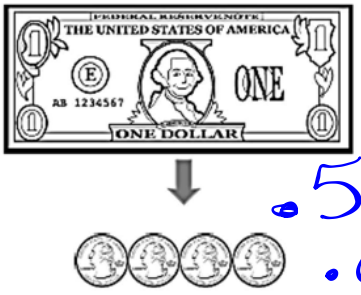
Complete the following:



1. 100 pennies = $1.00 — 100¢ = $\frac{}{100}$ dollar
2. 1 penny = $0.01 — 1¢ = $\frac{}{100}$ dollar
3. 6 pennies = $0.06 — 6¢ = $\frac{}{100}$ dollar
4. 10 pennies = $0.10 — 10¢ = $\frac{}{100}$ dollar
5. 26 pennies = $0.26 — 26¢ = $\frac{}{100}$ dollar

6. 10 dimes = $1.00 — 100¢ = $\frac{}{10}$ dollar
7. 1 dime = $0.10 — 10¢ = $\frac{}{10}$ dollar
8. 3 dimes = $0.30 — 30¢ = $\frac{}{10}$ dollar
9. 5 dimes = $0.50 — 50¢ = $\frac{}{10}$ dollar
10. 6 dimes = $0.60 — 60¢ = $\frac{}{10}$ dollar

11. 4 quarters = $1.00 — 100¢ = $\frac{}{100}$ dollar
12. 1 quarter = $0.25 — 25¢ = $\frac{}{100}$ dollar
13. 2 quarters = $0.50 — 50¢ = $\frac{}{100}$ dollar
14. 3 quarters = $0.75 — 75¢ = $\frac{}{100}$ dollar



.5 .05

Real World Scenario: Alijah has 1 dollar bill, 2 dimes, and 7 pennies. Cameron has 2 dollar bills, 3 quarters, and 9 pennies. How much money do they have in all?

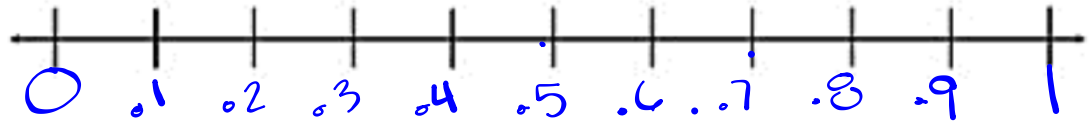
1.27
2.84
4.11

6

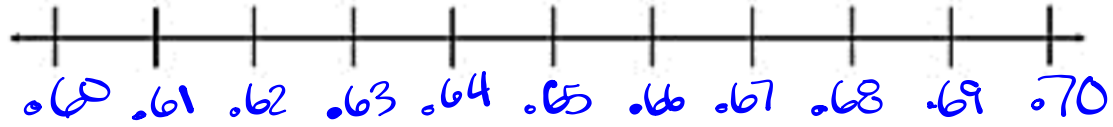
Day 11: Plotting, Comparing, Ordering, & Rounding Decimals

Plotting Decimals on a Number Line

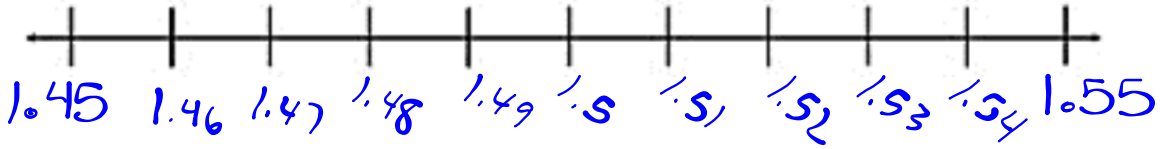
a. Plot the decimals from 0 to 1.



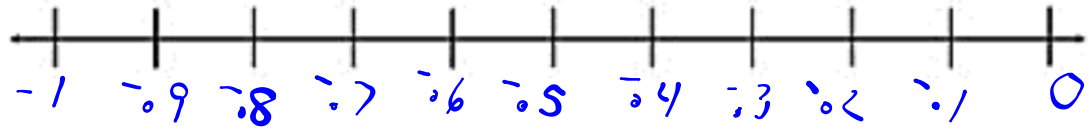
b. Plot the decimals from 0.6 to 0.7



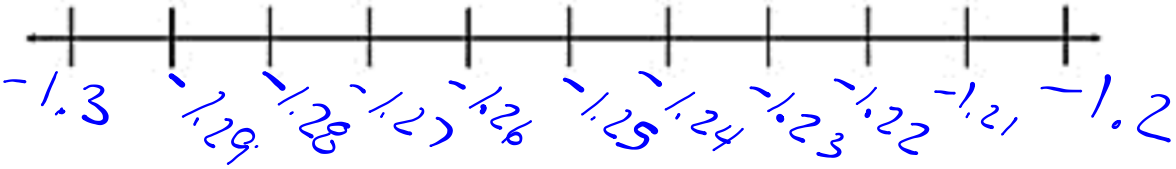
c. Plot the decimals from 1.45 to 1.55



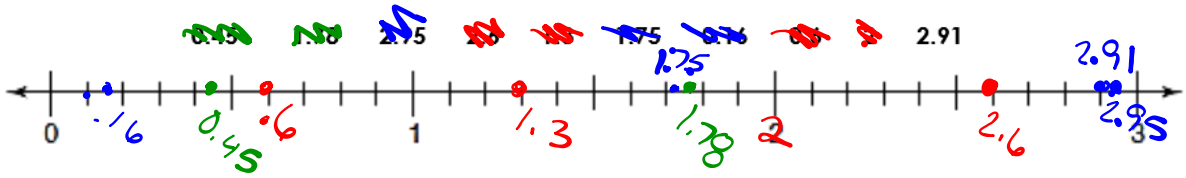
d. Plot the decimals from -1 to 0.



e. Plot the decimals from -1.3 to -1.2.



f. Plot the following numbers on the number line below.



g. Find the midpoint between the following numbers:

a. 0 5 10 b. 3 3.5 4 c. 0.2 .25 0.3

d. 0.03 .035 0.04 e. 0.13 .135 0.14 f. 7.8 7.85 7.9

g. 1.26 1.265 1.27 h. 1.59 1.595 1.60 i. 3.99 3.995 4

Rounding Decimals

Consider the decimal and answer the following questions: **13.179**

a. Is this decimal closer to 10 or 20? 10 Why? ones spot (3)

b. Is this decimal closer to 13 or 14? 13 Why? tenths spot (1)

c. Is this decimal closer to 13.1 or 13.2? 13.2 Why? hundredths spot (7)

d. Is this decimal closer to 13.17 or 13.18? 13.18 Why? thousandths spot (9)

Practice: Round the following numbers to the given place value in the table.

Number	Rounded to Nearest Ten	Rounded to Nearest One	Rounded to Nearest Tenth	Rounded to Nearest Hundredth
23.176	20	23	23.2	23.18
45.345	50	45	45.3	45.35
125.357	130	125	125.4	125.36
435.998	440	436	436.0	436.00
236.089	240	236	236.1	236.09

Critical Thinking: A decimal has two digits to the right of its decimal point. If we round it to the nearest tenth, the result is 18.6.

a. What is the smallest number that would result it being rounded to 18.6?

18.55

b. What is the largest number that would result it being rounded to 18.6?

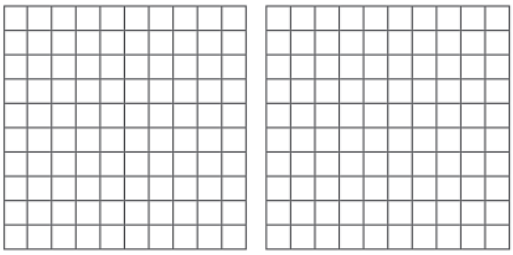
18.64

8

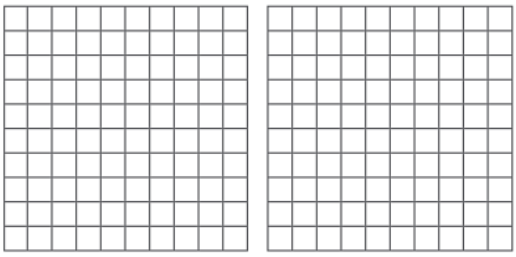
Comparing and Ordering Decimals

You can use your base ten block to help you determine if numbers are <, >, or = to each other.

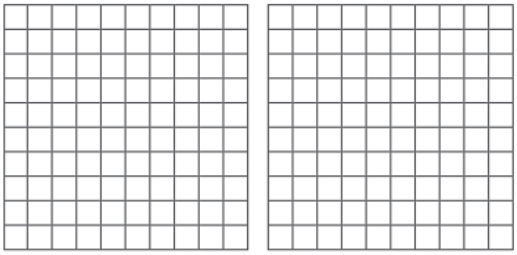
a. 0.2 _____ 0.25



b. 0.3 _____ 0.03



c. 0.3 _____ 0.30



Inequality Signs

<

>

=

Practice Comparing Decimals

0.32 _____ 0.3

0.999 _____ 1.0

0.6 _____ 0.09

3.48 _____ 3.4

-1.6 _____ -1.45

-0.87 _____ -0.865

Ordering Integers, Fractions, and Decimals

When ordering integers, fraction, and decimals, it is helpful to use benchmark fractions and decimals, in addition to converting all your numbers so they are in the same form. Some fractions are easily convertible to decimals, some fractions are important fractions that can be memorized, and some fractions you will have to convert to decimals using a calculator. Let's look at the three types:

Decimal Fractions	Important Fractions	Fractions to use with a Calculator
Decimal Fractions are fractions whose denominators are 10, 100, and 1000. Their decimal form is how you say the fraction properly.	Common fractions are fractions that occur frequently through math. The following list are common fractions that if you know their decimal equivalency, it can be extremely beneficial.	Fractions to determine with a calculator are essentially every other type of fraction. To enter them into your calculator, enter the numerator divided by the denominator.
$\frac{7}{10}=$	$\frac{1}{2}=$	$\frac{7}{8}=$
$\frac{56}{100}=$	$\frac{1}{3}=$ $\frac{2}{3}=$	$\frac{13}{15}=$
$\frac{173}{1000}=$	$\frac{1}{4}=$ $\frac{3}{4}=$	$\frac{2}{9}=$
$\frac{63}{1000}=$	$\frac{1}{5}=$ $\frac{2}{5}=$ $\frac{3}{5}=$ $\frac{4}{5}=$	$\frac{5}{18}=$
$\frac{3}{100}=$		

Fractions You Can Convert to Decimals by Scaling Up

If the denominator can be scaled up or down to a power of 10 (10, 100, 1000), it makes it easy to convert to a decimal.

a. $\frac{6}{25}$ b. $\frac{2}{5}$ c. $\frac{24}{200}$ d. $\frac{36}{50}$ e. $\frac{9}{20}$

Practice: Order the following numbers in order from least to greatest:

a. 6.45, -0.67, $\frac{43}{100}$, $6\frac{2}{5}$, -4, $3\frac{4}{10}$, 3.38, $\frac{7}{4}$

b. -2.6, -0.7, $\frac{978}{1000}$, $1\frac{7}{20}$, -2.34, $\frac{2}{10}$, $4\frac{3}{5}$, $\frac{3}{20}$

c. $\frac{3}{8}$, $\frac{3}{11}$, $\frac{3}{9}$, $\frac{3}{2}$, $\frac{3}{4}$, $\frac{3}{7}$, $\frac{3}{5}$

10

Real World Scenario: Coach Hubinger asked Taylor to keep track of the times in the 400 meter dash. Taylor recorded the times in the table as shown. List the runner's times in order from fastest to slowest. Who won the race?

Runner	Time (seconds)
1	53.18
2	53.09
3	53.01
4	54.13
5	52.18
6	53.75
7	51.28
8	53.99
9	52.99
10	56.98

Runner	Time (seconds)

a. How did you decide which decimal was the fastest? How did you determine the person with the next fastest time?

Real World Scenario: A trip from New York to Seattle is 2852.1 miles. A family wants to make the drive in 10 days, driving the same number of miles each day. About how many miles will they drive each day? Round your answer to the nearest mile.

Additional Practice

Jul 30-8:11 PM

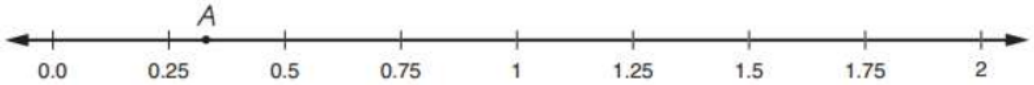
Foundations of Algebra Unit 1: Number Sense & Quantity Practice

Day 11: Rounding, Plotting, & Comparing Decimals **Name:** _____

Practice Assignment **0 25 50 75 100**

1. Mark the appropriate locations of the decimals and fractions on the number lines below. Rename the fractions as decimals if necessary.

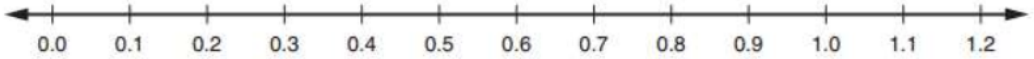
a.



A 0.33 *B* 1.6 *C* 0.7 *D* 1.01

E 1.99 *F* 1.33 *G* 0.1 *H* 0.8

b.



I 0.67 *J* 0.05 *K* $\frac{75}{100}$ *L* 0.49 *M* 0.99

N 1.15 *O* $\frac{25}{100}$ *P* 0.101 *Q* 0.55 *R* 0.88

2. *Compare the following numbers using <, >, or =:*

a. 16.45	◯	16.454
b. 0.83	◯	$\frac{83}{100}$
c. $\frac{205}{1000}$	◯	0.205
d. 95.045	◯	95.545
e. 419.10	◯	419.099
f. Five ones and eight tenths	◯	Fifty-eight tenths
g. Thirty-six and nine thousandths	◯	Four tens
h. One hundred four and twelve hundredths	◯	One hundred four and two thousandths
i. One hundred fifty-eight thousandths	◯	0.58
j. 703.005	◯	Seven hundred three and five hundredths

Foundations of Algebra Unit 1: Number Sense & Quantity Practice

3. *Order the decimals in order from least to greatest.*

a. 7.35, 9.45, 7.2, 7.94, 9.04, 9.72

b. 0.553, 0.53, 0.053, 0.35, 0.55, 0.035

c. 2.13, 2.561, 2.098, 2.56, 2.375, 2.36

d. -5.6, -4.2, -5.75, -5.62, -4.02, -4.29

4. What's green on the inside, white on the outsides, and hops? Put the numbers in order from least to greatest to find out.

0.66	1	0.2	1.05	0.90	0.01	0.75	0.35	$\frac{25}{100}$	$\frac{50}{100}$	0.05	0.09	5.5
N	I	O	C	W	A	D	S	G	A	F	R	H

Write your answers in the following table. The first answer is done for you.

0.01												
A												

5. *Round the following numbers to the stated place value:*

a. 37.823; hundredths b. 89.7267; hundredths c. 724.62; ones d. 27.93; tens

e. 298.49; tenths f. 893.2785; hundredths g. 2383.982; hundreds h. 423.99; tenths

6. A decimal has two digits to the right of its decimal point. If we round to the nearest tenth, the result is 13.7.

a. What is the maximum possible value of what the original number was?

b. What is the minimum possible value of what the original number was?

7. A root beer factory produces 132,554 cases in 100 days. About how many cases does the factory produce in 1 day? Round your answer to the nearest case.