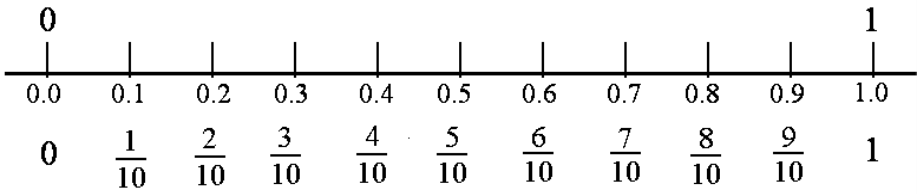
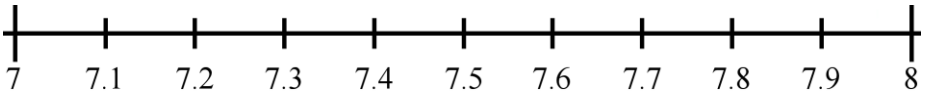
Name: _____ Decimals on the Number Line

Tenths:



Above we have a number line. With the unit (the distance between 0 and 1) divided into 10 equal parts and marked off in tenths. The tenths are labeled using both fractions and decimals. Notice that the point 1 can also be written as 1**.**0.

1. Here we have another number line with the unit distance between 7 and 8 divided into tenths and labeled using decimal numbers.



Find and label the point $7\ ^{6}/_{10}$.

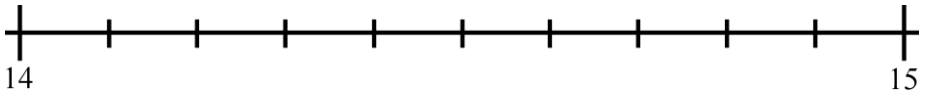
Find and label the point $7\ ^{9}/_{10}$.

How could you re-label the point 7.2 as a mixed number? _____

How could you re-label the point 7.5 as a mixed number? _____

Which point is midway between 7 and 8? _____

The point 7 could also be labeled_____ and 8 labeled _____.

2. 

Find and label these points on the number line above:

14.6 14.9 14.1 14.4 14.0 15.0

What point is midway between 14 and 15? _____

Name: _____ Decimals on the Number Line

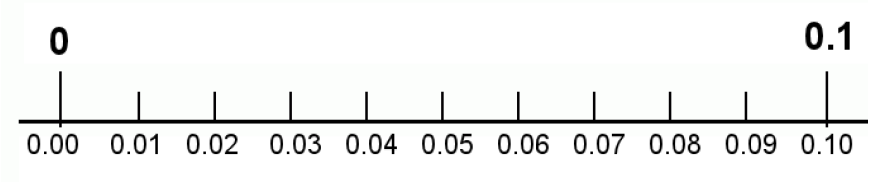
3. Write as decimals:

   7/10 = _____ $2\ ^{4}/_{10}$ = _____ $10\ ^{9}/_{10}$ = _____

4. Write as mixed numbers:

   0.9 = _____ 12.7 = _____ 109.1 = _____

Hundredths:



Here we have a number line in which the distance between 0 and 0.1 has divided into *ten* parts. The measure of each part is 1/10 of the distance between 0 and 0.1, or 1/100 of the unit distance (the distance between 0 and 1).
The measure of the distance between 0 and the point marked 0.01 is .01 (1/100) unit. The distance between 0 and the point 0.1 is .10 (10/100) unit. .1 and .10 are equivalent decimal numbers—just like 1/10 and 10/100 are equivalent fractions.

1. *Use the number line to answer the following*:

   What is the distance between the point .01 and the point .02? _____

   What is the distance between .09 and .1? _____

   What is the distance between .03 and .07? _____

   What is the difference between .1 and .06? _____

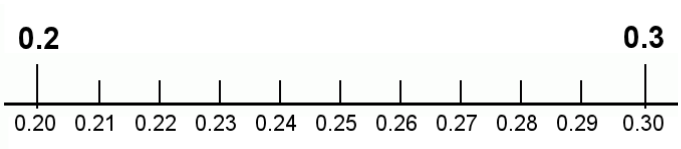
   What number is halfway between 0 and .1? _____

   How do you write the decimal .04 as a fraction? _____

   How do you write the decimal .06 as a fraction? _____

Name: _____ Decimals on the Number Line

2. Here we have a segment of the number line (from 0.2 to 0.3) marked in hundredths.



What is the distance (in units) between .2 and .3? _____ unit.

What is the distance between .22 and .23? _____ unit.

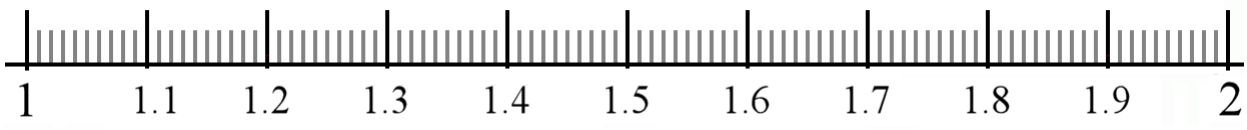
What is the difference between .28 and .2? _____

What is the difference between .3 and .26? _____

How do you write .27 as a fraction? _____

How do you write .30 as a fraction? _____ or _____

3. On the line segment below, the interval between 1 and 2 is divided into tenths (labeled). Each tenth has been further divided into ten equal parts. Each of these smaller parts is .01 unit.



Mark and label these points on the number line:

1.55 1.11 1.05 1.67 1.99 1.43 1.90 1.09 2.00 1.0

How many hundredths are there between 1 and 2? _____

How many tenths are there between 1 and 2? _____

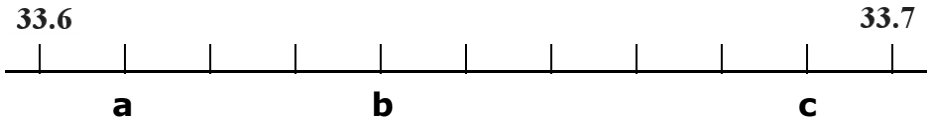
How many units are there between 1 and 2? _____

What is the distance between 1.8 and 1.3? _____

What is the difference between 1.27 and 1.24? _____

What is the distance between 1.72 and 1.68? _____

Name: _____ Decimals on the Number Line

4. 

Here we have the segment of the number line from **33.6** to **33.7**. It has been divided into ten equal parts.

What is the measure of each part? _____

Which decimal number does point **a** represent? _____

Which decimal number does **b** represent? _____

Which decimal number does **c** represent? _____

Mark the midpoint between 33.6 and 33.7 and label it with its correct decimal number.

5. *Write as decimals:*

4/100 =_____ 3/10 = _____

31/100 = _____ $5\ ^{7}/_{10}$ = _____

$2\ ^{14}/_{100}$ = _____ $5\ ^{7}/_{100}$ = _____

$\frac{3}{10} = .3$

$\frac{17}{100} = .17$

$\frac{5}{100} = .05$

6. *Write as fractions or mixed numbers:*

.02 = _____ 0.9 = _____

1.47 = _____ 3.08 = _____

$.7 = \frac{7}{10}$

$.26 = \frac{26}{100}$

7. *Use one of the symbols {<, >, =} to compare*:

36.9 _____37.8 0.42 _____ 0.6 0.8 _____ 0.80

.09 _____ .90 6.04 _____ 5.88 7.4 _____ .75