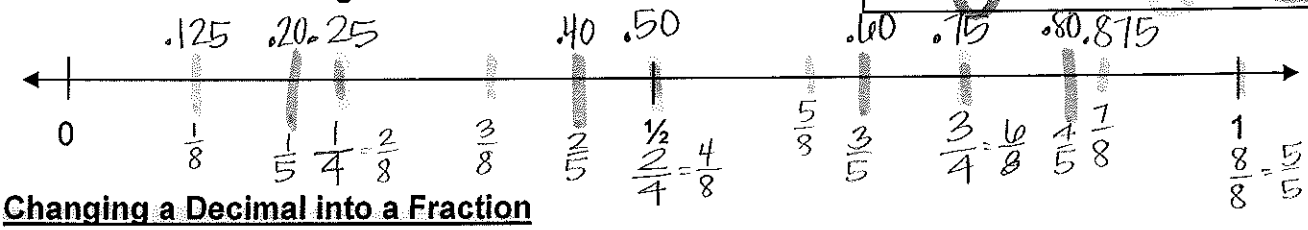
*Homework due 9/5 is any unfinished problems.

9/4/13

Converting Fractions and Decimals Notes

Where do the following numbers fit on the number line? 0.25 $\frac{3}{4}$ 0.125 $\frac{2}{5}$ 0.875



Changing a Decimal into a Fraction

→ Say It, Write It, Simplify It

Remember the correct place values: tenths, hundredths, thousandths, …

0.3 → $\frac{3}{10}$

0.15 → $\frac{15}{100} = \frac{3}{20}$

0.125 → $\frac{125}{1000} = \frac{5}{40} = \frac{1}{8}$

0.6 → $\frac{6}{10} = \frac{3}{5}$

0.06 → $\frac{6}{100} = \frac{3}{50}$

★0.006

4.7 → $4\frac{7}{10}$

★1.75

★6.5

★12.005

Changing a Fraction into a Decimal

Divide the numerator by the denominator. d⟌n.00

***Remember that remainders are not allowed!!

Set the fraction equal to ___ out of 10 or 100. → denominator is a factor of 10 or 100.

$\frac{1}{4} = \frac{25}{100} = 0.25$ (×25)

$\frac{4}{5} = \frac{8}{10} = 0.8$ (×2); $\frac{4}{5} = \frac{80}{100} = 0.80$ (×20)

$\frac{3}{25} = \frac{12}{100} = 0.12$ (×4)

$\frac{9}{20} = \frac{45}{100} = 0.45$ (×5)

$\frac{3}{8}$

$$\begin{array}{r} 0.375 \\ 8\overline{)3.000} \\ -24\downarrow \\ \hline 60 \\ -56\downarrow \\ \hline 40 \\ -40 \\ \hline 0 \end{array}$$

★$3\frac{3}{4}$

★$4\frac{2}{5}$

★$2\frac{7}{8}$

repeating decimals have a pattern that repeats forever.

Consider $\frac{1}{3}$.

$$3\overline{)1.000} = 0.\overline{333}$$

-9

10

-9

10

-9

1

← bar notation

* divide to the thousandths place

Let's Practice!! Convert the following fractions to decimals.

★ $\frac{2}{3}$ ★ $\frac{5}{6}$ ★ $8\frac{1}{3}$

What fraction of a dollar is ten cents?

What fraction of a dollar is fifty cents?

If you are given an amount of money in cents, how can you find the fraction of a dollar it represents?

Use the digits 0-9 to create numbers that fit this ordering.

Fraction < Decimal < Fraction < Whole Number < Decimal

_____ < _____ < $\frac{4}{5}$ < _____ < _____

You write a fraction as a decimal and it looks like 0.00☐, fill in the box with a number of your choice and write three things you are *sure* are true about this number.

1.

2.

3.