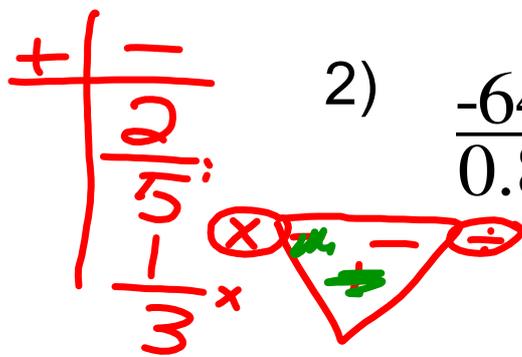


You need out your warm up & agenda

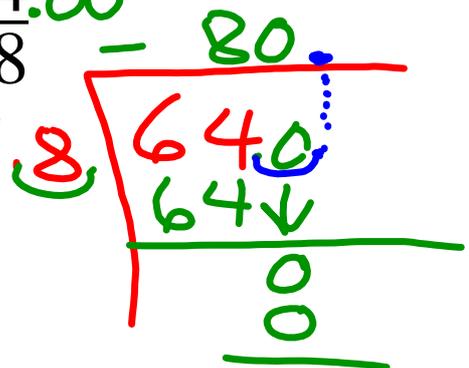
Homework: Converting. Quiz Friday!

Warm Up:

1)  $\frac{-2}{5} - \frac{1}{3}$



2)  $\frac{-64.00}{0.8}$  DMSBD



## Converting Fractions to Decimals Notes

Quick Review! Simply the following fractions:

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

2)  $\frac{24}{36} \div 12 = \frac{2}{3}$

3)  $\frac{30}{36} \div 6 = \frac{5}{6}$

### Converting Fractions to Decimals

To convert a fraction to a decimal divide the numerator by the denominator (First one out of your mouth goes in the house!) **\*Simplify first**

Ex:  $\frac{12}{16} \div 2 = \frac{6}{8} \div 2 = \boxed{\frac{3}{4}} + \frac{1}{45}$

$$\begin{array}{r}
 4 \overline{) 3.100} \\
 \underline{-28} \phantom{0} \\
 20 \\
 \underline{-20} \\
 0
 \end{array}$$

∴  $\frac{3}{4}$

$$\begin{array}{r}
 .0\bar{2} \\
 45 \overline{) 1.00} \\
 \underline{-0} \phantom{0} \\
 0100 \\
 \underline{-90} \\
 10
 \end{array}$$

Practice!

$$\frac{3}{8} \quad .375 \quad \frac{1}{40}$$

$$8 \overline{) 3.1000}$$

$$\begin{array}{r} 3 \\ \underline{-24} \\ 50 \\ \underline{-56} \\ 40 \\ \underline{-40} \\ 0 \end{array}$$

$$40 \overline{) 1.0000}$$

$$\begin{array}{r} .025 \\ \underline{-0} \\ 100 \\ \underline{-80} \\ 200 \\ \underline{-200} \\ 0 \end{array}$$

$$\frac{7}{20} \quad .35$$
$$20 \overline{) 7.00}$$
$$\underline{60 \downarrow}$$
$$100$$

$$\frac{8}{9}$$

$$9 \overline{) 8.100}$$
$$\underline{72 \downarrow}$$
$$780$$
$$\underline{72}$$
$$80$$

Terminating and Repeating Decimals

Terminating Decimals:

a decimal that ends

Example:  $\frac{12}{16}$ ,  $\frac{3}{8}$ ,  $\frac{1}{40}$ ,  $\frac{7}{20}$

Repeating Decimals:

does not end, it repeats —

Example:  $\frac{1}{45}$ ,  $\frac{8}{9}$

What kind of decimal is  $\frac{8}{9}$ ? Repeating or terminating?

Use a calculator to convert the fraction into a decimal.

$$\frac{1}{9} \ .\overline{1} \quad \frac{2}{9} \ .\overline{2} \quad \frac{3}{9} \ .\overline{3} \quad \frac{4}{9} \ .\overline{4} \quad \frac{5}{9} \ .\overline{5} \quad \frac{6}{9} \ .\overline{6} \quad \frac{7}{9} \ .\overline{7} \quad \frac{8}{9} \ .\overline{8}$$

What do you notice?

9 in the denominator = numerator

$$\frac{12}{99} = .\overline{12} \quad \frac{134}{999} = .\overline{134} \quad \overline{.14} = \frac{14}{99}$$

$$\overline{.625} = \frac{625}{999}$$

## Converting Fractions to Decimals- Homework

Without using a calculator, convert each fraction into a decimal.

1)  $\frac{8}{9}$

2)  $\frac{-2}{5}$

3)  $\frac{8}{11}$

4)  $\frac{-4}{5}$

5)  $\frac{4}{25}$