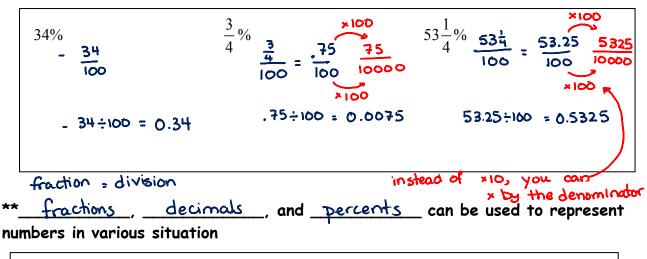Date:_____

4.2 Fractions, Decimals, and Percents
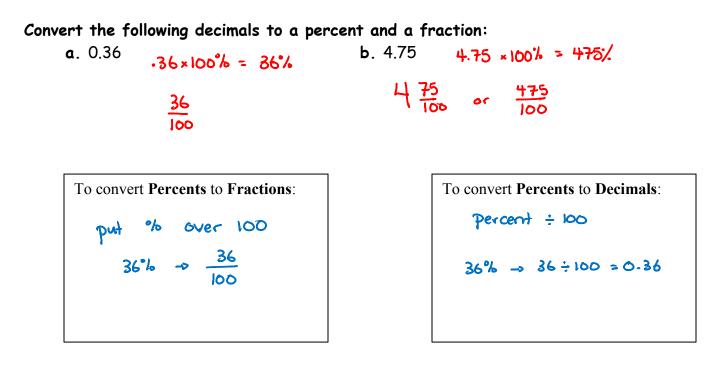
Write the following percents as a fraction and as a decimal:

34%

$-\dfrac{34}{100}$
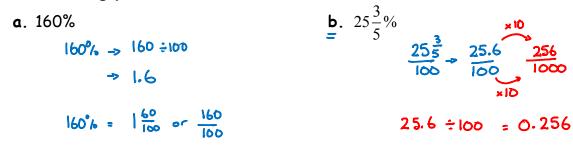
$-\ 34 \div 100 = 0.34$

$\dfrac{3}{4}\%$

$\dfrac{\frac{3}{4}}{100} = \dfrac{.75}{100}$ ×100→ $\dfrac{75}{10000}$ ←×100

$.75 \div 100 = 0.0075$

$53\dfrac{1}{4}\%$

$\dfrac{53\frac{1}{4}}{100} = \dfrac{53.25}{100}$ ×100→ $\dfrac{5325}{10000}$ ←×100

$53.25 \div 100 = 0.5325$

fraction = division

instead of ×10, you can × by the denominator

__fractions__, __decimals__, and __percents__ can be used to represent numbers in various situation

REMEMBER:
Percent is something out of one hundred!

In order to make a fraction into a ~~decimal~~ percent, convert the denominator into 100

ex: $\dfrac{1}{5} = \dfrac{20}{100}$ ×20↗ ×20↘

$\dfrac{1}{5} = 20\%$

$\dfrac{1}{5}$: $1 \div 5 = 0.20$

Convert each fraction to a decimal and a percent:

a. $\dfrac{2}{5} = \dfrac{4}{10}$ decimal: 0.4   percent: $\dfrac{2}{5} = \dfrac{40}{100}$ ×20   40%

b. $\dfrac{7}{5}$ decimal: 1.4   percent: 140%
can also do 7÷5

To convert **Decimals** to **Percents**:

multiply decimal × 100%

eg 0.35 × 100% = 35%

To convert **Decimals** to **Fractions**:

- remember, a decimal
  is a number with
  a denominator of 1

eg

0.35 → $\dfrac{0.35}{1}$ = $\dfrac{3.5}{10}$ = $\dfrac{35}{100}$
  ×10   ×10

Convert the following decimals to a percent and a fraction:

a. 0.36 $.36 \times 100\% = 36\%$

$$\frac{36}{100}$$

b. 4.75 $4.75 \times 100\% = 475\%$

$$4\frac{75}{100} \quad \text{or} \quad \frac{475}{100}$$

To convert **Percents** to **Fractions**:
put % over 100
$36\% \rightarrow \dfrac{36}{100}$

To convert **Percents** to **Decimals**:
Percent ÷ 100
$36\% \rightarrow 36 \div 100 = 0.36$

Convert the following percents into a fraction and a decimal:

a. 160%

$$160\% \rightarrow 160 \div 100$$
$$\rightarrow 1.6$$
$$160\% = 1\frac{60}{100} \quad \text{or} \quad \frac{160}{100}$$

b. $25\frac{3}{5}\%$

$$\frac{25\frac{3}{5}}{100} \rightarrow \frac{25.6}{100} \xrightarrow{\times 10}_{\times 10} \frac{256}{1000}$$

$$25.6 \div 100 = 0.256$$

Example:

Jorje participated in the National HotDog Eating Competition. During the competition 1600 hot dogs were consumed. Jorje ate 212 hot dogs. What percentage did he consume? What is this percentage as a decimal and as a fraction?

$$\frac{212}{1600} \rightarrow \qquad 212 \div 1600 = 0.1325 \rightarrow 0.1325 \times 100\% = 13.25\%$$

fraction   decimal   Percent

p 135 #2,4-6,10,11,13,16,18

2