

Warmup: 3-3

1/8/09

Determine whether each pair of ratios forms a proportion

① $\frac{4}{3}, \frac{6}{8}$

no

② $\frac{4}{10}, \frac{10}{25}$

yes

Solve each proportion

③ $\frac{10}{n} = \frac{6}{9}$

15

④ $\frac{15}{35} = \frac{k}{14}$

6

⑤ If 12 people at a baseball game eat 17 hotdogs, how many hotdogs will 24 people eat?

34

Notes: 3-4 Fractions, Decimals, and Percents 1/8

① Percent → Fraction

ex: 60% Percent: # out of 100

$\frac{60}{100}$ ① write out of 100

$\frac{60 \div 20}{100 \div 20} = \frac{3}{5}$ ② Simplify

→ take % over 100 then simplify

② Fraction → Percent

ex: $\frac{1}{8}$

$\frac{1}{8} = \frac{x}{100}$

① Find out equivalent fraction out of 100

~~$\frac{1}{8} = \frac{x}{100}$~~

② Solve by cross-multiplying

$\frac{8x}{8} = \frac{100}{8}$

$x = 12.5 \rightarrow 12.5\%$

→ Find an equivalent fraction out of 100 by setting equal to $\frac{x}{100}$. Then cross-multiply and solve for x .

Try This:- Percents \rightarrow Fractions :

1) 24%

2) 46%

1) $\frac{6}{25}$

2) $\frac{23}{50}$

- Fractions \rightarrow Percents :

3) $\frac{15}{40}$

4) $\frac{3}{4}$

3) 37.5%

4) 75%

Percent \rightarrow Decimals :

ex: 30% \rightarrow think $\frac{30}{100}$, or thirty hundredths

\swarrow
30

① Move decimal point
2 to the left

$$30\% = 0.30$$

Decimals \rightarrow Percents

ex: $0.75 =$ "seventy-five hundredths" $= \frac{75}{100} = 75\%$

or

ex: 0.75 ① move decimal point 2 to RIGHT

$$0.75 = 75\%$$

Notes: 3-4 Cont.

1/8/09

Try This:

% \rightarrow decimal

1) 78%

2) 12.5%

1) 0.78

2) 0.125

decimal \rightarrow %

3) 0.56

4) 0.238

3) 56%

4) 23.8%

Fractions \rightarrow decimals

\rightarrow divide top by bottom

ex: $\frac{3}{4}$

$$\begin{array}{r} 0.75 \\ 4 \overline{) 3.000} \\ \underline{-0} \downarrow \\ 30 \\ \underline{-28} \downarrow \\ 20 \\ \underline{-20} \\ 0 \end{array}$$

decimals \rightarrow fractions

(always simplify fractions)

0.75 $\xrightarrow{\text{Method 1}}$

$\frac{75}{100}$ \leftarrow Top: put #s after decimal
 $\frac{75}{100}$ \leftarrow Bottom: write a 1 and follow w/ a zero per # on top

$\xrightarrow{\text{Method 2}}$

read: "seventy-five hundredths"

$$\frac{75}{100}$$

Notes: 3-4 cont.

1/8/09

ex: decimals \rightarrow fractions

$$0.6 \rightarrow \frac{6}{10}$$

Try This:

decimals \rightarrow fractions

1) 0.48

2) 0.12

fractions \rightarrow decimals

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

4) $\frac{3}{10}$

HW p116 #14-35 by 3's