

Math 20 - Thursday, 3/9

Questions on 4.5, 4.6, 7.1

Quiz 7 on 4.5, 4.6, 7.1

Questions on 7.2, 5.1, 5.2

New material: 5.3, 5.4, 6.1

Assignment 4 due next Tuesday

All recovery work due next Tuesday

Final review packet handed out
on Tuesday

Class Celebration on Thurs, 3/16

Bring a snack to share if you wish

Questions

7.1

$$30\% + 16\% + 44\% = 90\%$$

$$90\% - 10\% = 80\% \text{ more}$$

$$4.\overline{7}$$

$$4.777777\dots$$

$$4.\overline{123}$$

$$4.123123123$$

$$\frac{1}{3} \quad 1 \div 3$$

exact decimal

$$.\overline{3}$$

$$.\overline{6}$$

round to the nearest _____

$$.67$$

$$\frac{5}{17}$$

$$\approx .29$$

$$.294$$

$$\begin{array}{r}
 4 \\
 17 \overline{) 8.000} \\
 \underline{34} \\
 160 \\
 \underline{153} \\
 70 \\
 \underline{68} \\
 20
 \end{array}$$

$$\begin{array}{r}
 6 \\
 17 \\
 9 \\
 \hline
 153 \\
 2 \\
 17 \\
 4 \\
 \hline
 68
 \end{array}$$

square roots

$$\sqrt{49} = 7$$

outside
OK

$$\sqrt{\frac{1}{16}} = \frac{1}{4}$$

$$\frac{1}{4} \cdot \frac{1}{4} = \frac{1}{16}$$

$$\sqrt{\frac{1}{16}} = \frac{1}{4}$$

$$\sqrt{-9}$$

DNE

$$3 \cdot 3 = 9$$
$$(-3)(-3) = 9$$

$$-\left[\sqrt{9}\right]$$
$$\downarrow$$
$$-3$$

$$\sqrt{-81}$$

DNE

Does not exist

Questions 5.2 Solving Proportions

#4.

$$\frac{8}{3} = \frac{9}{x}$$

$$\frac{8}{3} = \frac{16}{x}$$

$$\begin{aligned} \frac{8x}{8} &= \frac{3 \cdot 9}{8} \\ x &= \frac{3 \cdot 9}{8} \\ &= 3.375 \end{aligned}$$

$\frac{27}{8}$
webwork
keep
as
a
fraction

$$x = 6$$

Section 5.3 - Unit Conversions with US units

feet, inches, miles

pounds, ounces

cups, pints, quarts

$$1 \text{ mile} = 5,280 \text{ ft.}$$

876 feet into miles

Dimensional Analysis - cancel units

$$\frac{876 \cancel{\text{ feet}}}{1} \cdot \frac{1 \text{ (mile)}}{5280 \cancel{\text{ ft}}} = \frac{876}{5280} \text{ miles}$$

conversion factor

$$= .17 \text{ miles}$$

4.3 miles to feet

$$\frac{4.3 \text{ miles}}{1} \cdot \frac{5280 \text{ ft}}{1 \cancel{\text{ mile}}} = 22,704 \text{ feet}$$

6 quarts to cups

$$\frac{6 \text{ quarts}}{1} \cdot \frac{2 \cancel{\text{ pts}}}{1 \cancel{\text{ qts}}} \cdot \frac{2 \text{ cups}}{1 \cancel{\text{ pints}}} = 6 \cdot 2 \cdot 2 = 24 \text{ cups}$$

Fraction:

$2\frac{5}{6}$ ft to inches

$$\frac{2\frac{5}{6} \text{ ft}}{1} \cdot \frac{12 \text{ (in)}}{1 \text{ ft}} = 2\frac{5}{6} \cdot 12 = \frac{17}{6} \cdot \frac{12}{1} = 34 \text{ inches}$$

Section 5.4 - Unit Conversions with metric units

Set up with the number 10

Kilograms	1
hectograms	10
dekagrams	100
grams	1000
decigrams	10,000
centigrams	100,000
milligrams	1,000,000

use the conversion chart

kilo	hecto	deka	meter gram liter	deci	centi	milli
------	-------	------	------------------------	------	-------	-------

see worksheet for practice

Section 6.1 - Intro to Percents

Store sales 50% off

Statistics 97% of the population

Food 2% milk

grades 95% A 90

weight percentile 80

clothing 50% cotton 70

50%

tips

Percent ~~over~~

100% whole

Fraction 1 or $\frac{1}{1}$

Decimal 1.00

50%

$\frac{1}{2}$

0.50

25%

$\frac{1}{4}$

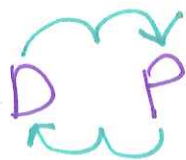
.25

1%

$\frac{1}{100}$

.01

percent means per 100



.1%

$\frac{1}{1000}$

.001

34%

.34

8%

.08

80%

.80

43.9%

.439

webwork
#12.

Ex: a. Change $\frac{11}{15}$ to a percentage

$$15 \overline{)11}$$

$\frac{11}{15}$ means $11 \div 15$

= $0.\overline{73}$ change to a %

$73.\overline{3}$ round to 2 decimal places

$\approx 73.33\%$
↑

$\frac{2}{9} = \overline{.22222...}$ exact $22.\overline{2}\%$

$\approx 22.22\%$ rounded