

Chapter 5: Capacity, Volume, Mass & Temperature

Name: _____

Capacity

Fractions and Decimals

Convert a fraction to a decimal by dividing numerator by denominator.

$$\frac{5}{8} = 5 \div 8 = 0.625$$

$$3\frac{2}{7} = 3.286$$

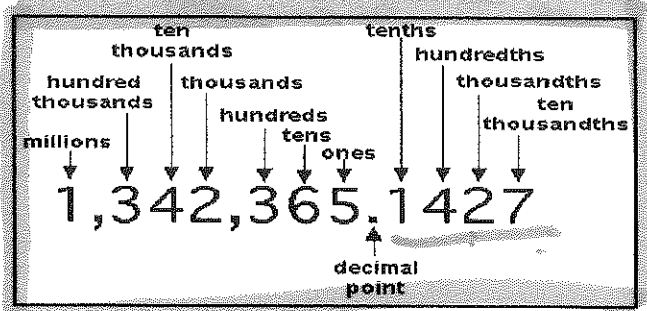
$$4\frac{1}{2} = 4.5$$

Rounding

"Round to one decimal place" means end the number one digit after the decimal.

(nearest tenth)

5 ≤ round up.



$$45.6734 = 45.7 \text{ (one decimal place)}$$

$$657.3258 = 657.33 \text{ (nearest hundredth)}$$

$$72.9621 = 73.0 \text{ (nearest tenth)}$$

Capacity: The amount a container can (or does) hold. Often used for liquid or dry measures. May be used interchangeably with 'volume' (Units used include: tablespoon, cup, gallon, litre etc.)

Unit	Referent	Conversion
Fluid Ounce (fl oz)	shot glass	1 fl oz = 2 T, 1 fl oz = 6 tsp
Cup (c)	tea cup	1 c = 8 fl oz (US) or 1 c = 10 fl oz (UK) **
Pint (pt)	beer	1 pt = 2 c, 1 pt = 16 fl oz (US) or 1 pt = 20 fl oz (UK) **
Quart (qt)	oil bottle	1 qt = 2 pt, 1 qt = 32 fl oz (US) or 1 qt = 40 fl oz (UK) **
Gallon (gal)	Plastic Milk Jug	1 gal = 4 qt, 1 gal = 128 fl oz (US) or 1 gal = 160 fl oz (UK) **
Bushel (bu)	Beverly Sugar	1 bu = 8 gal
Tablespoon (T)	Big Spoon	1 T = 3 tsp
Teaspoon (tsp)	Small Spoon	1 tsp = $\frac{1}{6}$ fl oz

**British and American units for capacity are slightly different

1 cup



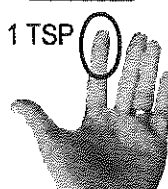
1 oz



1 TBSP



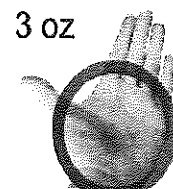
1 TSP



1-2 oz



3 oz



Conversions

Set up a proportion with equivalent fractions.



First Fraction:
values from data
table

Second Fraction:
values from
question
(known/unknown)
x

Match units in numerators and denominators

• Cross multiply ÷ Divide
table

$$\frac{32 \text{ fl oz}}{1 \text{ qt}} = \frac{x \text{ fl oz}}{2.5 \text{ qt}}$$

Example:

How many fluid ounces (US) are there in 2.5 quarts?

$$32 \times 2.5 \div 1 = 80 \text{ fl oz}$$

Practice:

1. 21 fl oz = 2.63 c

$$\frac{8 \text{ oz}}{1 \text{ c}} = \frac{21 \text{ oz}}{x \text{ c}}$$

2. 45 gal = 5.63 bu

$$\frac{8 \text{ gal}}{1 \text{ bu}} = \frac{45 \text{ gal}}{x \text{ bu}}$$

3. $9\frac{1}{2}$ pt = 152 fl oz

$$\frac{1 \text{ pt}}{16 \text{ oz}} = \frac{9.5 \text{ pt}}{x \text{ oz}}$$

4. 50 c = 400 fl oz

$$\frac{1 \text{ c}}{8 \text{ oz}} = \frac{50 \text{ c}}{x \text{ oz}}$$

5. 8 fl oz = 16 T

$$\frac{2 \text{ T}}{1 \text{ oz}} = \frac{x \text{ T}}{8 \text{ oz}}$$

6. $5\frac{1}{2}$ T = 16.5 tsp

$$\frac{1 \text{ T}}{3 \text{ tsp}} = \frac{5.5 \text{ T}}{x \text{ tsp}}$$

GO

PG 124 1, 2, 5, 6
127 1-5