Culinary Math Exercise 1

Convert units to fractions

Convert smaller units into fractions of a larger unit

Example: 4 cups = _____ gallon

How many cups in a gallon? 16, so multiply 4 by 1/16.

$4\,c. = \frac{4}{16}\,gal. = \frac{1}{4}\,gal.$

2 cups = _____ gallon   3 cups = _____ quart

4 fluid ounces = _____ cup   6 ounces = _____ pound

                                         4 tablespoons = _____ pint

2 teaspoons = _____ tablespoon

Convert smaller units into mixed fractions of a larger unit

Example: 22 tablespoons = _____ cups

How many tbsp. in a cup? 16, so multiply 22 by 1/16.

$22\,tbsp. = \frac{22}{16}\,c. = 1\frac{6}{16}\,c.$ *(NOTE THAT YOU <u>CAN'T</u> MEASURE 1 6/16 CUPS!)*

so you need to express this in cups and tablespoons

$22\,tbsp. = \frac{22}{16}\,c. = 1\frac{6}{16}\,c. = 1\,c.\,6\,tbsp.$

3 c. = _____pt.   =_____pt. _____c.

14 fl. oz. = _____c.   =_____pt. _____fl. oz.

18 oz. = _____ lb.   =_____lb. _____oz.

9 c. = ____qt .   =_____qt. _____c.

34 c. = _____ gal.   =_____gal. _____c.

4 tsp. = _____tbsp.   =_____tbsp. _____tsp.

Conversion: Multiply and convert to usable measure

> *Example: A recipe calls for 4 teaspoons baking powder, you need to make 8 times the*
> *recipe.*
>
> *a. multiply 4 tsp. × 8 = 32 tsp. BUT YOU DON'T WANT TO MEASURE SO MANY*
> *TEASPOONS! SO WHAT'S THE NEXT BIGGER UNIT? A TABLESPOON. HOW*
> *MANY TABLESPOONS EQUAL 32 TEASPOONS?*
>
> *b.* $32\ tsp. = \frac{32}{3}\ tbsp. = 10\ \frac{2}{3}\ tbsp. = \mathbf{10\ tbsp}.\ \mathbf{2\ tsp}.$

multiply   **convert to usable measure**

3 c. × 3 =_____   =_____

9 fl. oz. × 4 = _____   =_____

9 oz. × 3 = _____   =_____

2 tsp. × 21 = _____   =_____

1/2 c. × 13 = _____   =_____

2 pt. × 5 = _____   =_____