

Guided Notes 4.5 Convert Measurement Units (6.RP.3 and 6.RP.3d)

Vocabulary

Unit Ratio - a comparison of two quantities in which the denominator is 1 unit.

Dimensional analysis is the process of including units of measurement as factors when you compute.

Conversions

Customary Conversions			
Type of Measure	Larger Unit	→	Smaller Unit
Length	1 foot (ft)	=	12 inches (in.)
	1 yard (yd)	=	3 feet
	1 mile (mi)	=	5,280 feet
Weight	1 pound (lb)	=	16 ounces (oz)
	1 ton (T)	=	2,000 pounds
Capacity	1 cup (c)	=	8 fluid ounces (fl oz)
	1 pint (pt)	=	2 cups
	1 quart (qt)	=	2 pints
	1 gallon (gal)	=	4 quarts

Guided Practice:

1.) $5\frac{1}{3}$ yd = 16 ft

$$\frac{16 \cancel{\text{yd}}}{8} \times \frac{1 \cancel{\text{ft}}}{1 \text{ yd}} = \frac{16 \text{ ft}}{1}$$

2.) $4\frac{1}{2}$ pt = 9 c

$$\frac{9 \cancel{\text{pt}}}{2} \times \frac{2 \cancel{\text{c}}}{1 \text{ pt}} = \frac{9 \text{ c}}{1}$$

3.) 12 qt = 3 gal

$$3 \frac{12 \cancel{\text{qt}}}{1} \times \frac{1 \text{ gal}}{4 \cancel{\text{qt}}} = \frac{3 \text{ gal}}{1}$$

4.) 28 in. = 2 $\frac{2}{3}$ ft.

$$7 \frac{28 \cancel{\text{in}}}{1} \times \frac{1 \text{ ft}}{3 \cancel{\text{in}}} = \frac{7 \text{ ft}}{3}$$

~~5.) A larger grouper can weigh $\frac{1}{3}$ ton. How much does a larger grouper weigh to the nearest pound?~~

Partner Talk

The world's narrowest electric vehicle is about 35 inches wide. How wide is this vehicle to the nearest foot?

$$\frac{35 \cancel{\text{in}}}{1} \times \frac{1 \text{ ft}}{12 \cancel{\text{in}}} = \frac{35 \text{ ft}}{12} = 2\frac{11}{12} \text{ ft} = \text{about } 3 \text{ ft}$$

~~Building on the Essential Question - How can you use ratios to convert units of measurement?~~

Rate Yourself - Are you ready to move on? Shade the section that applies.

