

Volume Conversion Worksheet

Name KEY

Use the following conversions for this worksheet:

$$1 \text{ U.S. quart (qt)} = 0.946 \text{ Liter (L)}$$

$$1 \text{ quart} = 2 \text{ pints}$$

$$1 \text{ L} = 1.06 \text{ qt}$$

$$1 \text{ in}^3 = 16.387 \text{ cm}^3$$

$$1 \text{ gallon} = 3.79 \text{ L}$$

$$1 \text{ Liter} = 61.024 \text{ in}^3$$

$$1 \text{ gallon} = 4 \text{ quarts}$$

1) 5 Liters = _____ in^3

$$\begin{array}{r|l} 5 \text{ L} & 61.024 \text{ in}^3 \\ \hline & 1 \text{ L} \end{array} = \boxed{305.12 \text{ in}^3}$$

2) 150cc = _____ in^3

$$\begin{array}{r|l} 150 \text{ cc} & 1 \text{ in}^3 \\ \hline & 16.387 \text{ cc} \end{array} = \frac{150}{16.387} \text{ in}^3 = \boxed{9.154 \text{ in}^3}$$

3) Gas is \$1.74/Gallon. How much is it per liter?

$$\begin{array}{r|l} \$1.74 & 1 \text{ Gallon} \\ \hline 1 \text{ Gallon} & 3.79 \text{ L} \end{array} = \frac{\$1.74}{3.79} = \$0.46 / \text{Liter}$$

4) A 327 in^3 engine in how many liters?

$$\begin{array}{r|l} 327 \text{ in}^3 & 1 \text{ Liter} \\ \hline & 61.024 \text{ in}^3 \end{array} = \boxed{5.36 \text{ L}}$$

5) 7.5 qt = _____ L

$$\begin{array}{r|l} 7.5 \text{ qt} & 1 \text{ L} \\ \hline & 1.06 \text{ qt} \end{array} = \boxed{7.08 \text{ L}}$$

6) 10qt = _____ gallons

$$\frac{10\text{qt}}{4\text{qt}} \times \frac{1\text{gallon}}{1} = 2.5\text{ gallons}$$

7) 2L = _____ qts

$$\frac{2\text{L}}{1\text{L}} \times \frac{1.05\text{qt}}{1} = 2.12\text{qt}$$

8) 6 gallons = _____ L

$$\frac{6\text{gal}}{1\text{gallon}} \times \frac{3.79\text{L}}{1} = 22.74\text{L}$$

9) A 50 gallon drum is how many liters?

$$\frac{50\text{gallon}}{1\text{gallon}} \times \frac{3.79\text{L}}{1} = 189.50\text{L}$$

10) 18 pints = _____ Gallons

$$\frac{18\text{pts}}{2\text{pts}} \times \frac{1\text{qt}}{4\text{qts}} \times \frac{1\text{gallon}}{1} = 2.25\text{ gallons}$$

11) 2 gallons = _____ pints

$$\frac{2\text{gallons}}{1\text{gallon}} \times \frac{4\text{qts}}{1} \times \frac{2\text{pts}}{1\text{qt}} = 16\text{pts}$$

12) 450 cc = _____ Liters

$$\frac{450\text{cc}}{16.387\text{cc}} \times \frac{1\text{m}^3}{61.024\text{m}^3} \times \frac{1\text{L}}{1} = \frac{450}{1000} = .45\text{L}$$