

Medium Question: Convert 30.6 mi/gal to km/L. Note, 1 mi = 1.609 km and 1 gal = 3.785 L.

Medium Solution:

$$V = \frac{30.6 \text{ mi}}{1 \text{ gal}} \times \frac{1.609 \text{ km}}{1 \text{ mi}} \times \frac{1 \text{ gal}}{3.785 \text{ L}}$$

$$V = 13.0 \text{ km/L}$$

Hard Question: Medium Question: Convert 30.6 mi/gal to km/L. Note, 1 mi = 5280 ft, 1 in = 2.54 cm, and 1 gal = 3.785 L.

Hard Solution:

$$V = \frac{30.6 \text{ mi}}{1 \text{ gal}} \times \left(\frac{5,280 \text{ ft}}{1 \text{ mi}} \times \frac{12 \text{ in}}{1 \text{ ft}} \times \frac{2.54 \text{ cm}}{1 \text{ in}} \times \frac{1 \text{ m}}{100 \text{ cm}} \times \frac{1 \text{ km}}{1000 \text{ m}} \right) \times \frac{1 \text{ gal}}{3.785 \text{ L}}$$

$$V = 13.0 \text{ km/L}$$