

Practice Quiz: Dimensional Analysis

1. $208 \text{ km} = ? \text{ mi}$

2. $0.0074 \text{ mL} = ? \text{ nL}$

3. $52.80 \text{ ft/s} = ? \text{ in}/\mu\text{s}$

4. $220 \text{ L/min} = ? \text{ mL/day}$

**Answers on
next slide!**

Practice Quiz:

Dimensional Analysis

1. 208 km = ? mi

$$208 \cancel{\text{km}} \times \frac{1 \text{ mi}}{1.61 \cancel{\text{km}}} = \boxed{129 \text{ mi}}$$

2. 0.0074 mL = ? nL

$$0.0074 \cancel{\text{mL}} \times \frac{1 \cancel{\text{L}}}{1000 \cancel{\text{mL}}} \times \frac{10^9 \text{ nL}}{1 \cancel{\text{L}}} = \boxed{7400 \text{ nL}}$$

3. 52.80 ft/s = ? in/ μ s

$$\frac{52.80 \cancel{\text{ft}}}{1 \cancel{\text{s}}} \times \frac{12 \text{ in}}{1 \cancel{\text{ft}}} \times \frac{1 \cancel{\text{s}}}{10^6 \mu\text{s}} = \boxed{6.336 \times 10^{-4} \text{ in}/\mu\text{s}}$$

4. 220 L/min = ? mL/day

$$\frac{220 \cancel{\text{L}}}{1 \cancel{\text{min}}} \times \frac{1000 \text{ mL}}{1 \cancel{\text{L}}} \times \frac{60 \cancel{\text{min}}}{1 \cancel{\text{hr}}} \times \frac{24 \cancel{\text{hr}}}{1 \text{ day}} = \boxed{3.2 \times 10^8 \text{ mL/day}}$$