

Dimensional Analysis Practice Worksheet

There are 10 practice problems in this worksheet. Each problem involves changing a quantity (the given quantity) from one type of unit to another in a step by step manner. All 10 problems indicate how many **conversion factors** you will need to use in order to get to the final answer. Problems one through five indicate the **units** involved in each step. For problems six through ten you will have to determine the **units** involved in each step yourself.

1) Convert 56 mg to grams

$$56 \text{ mg} \times \frac{\text{g}}{\text{mg}} = \text{g}$$

2) Convert 240 km to m

$$240 \text{ km} \times \frac{\text{m}}{\text{km}} = \text{m}$$

3) Convert 2 in to m (1 in = 2.54 cm)

$$2 \text{ in} \times \frac{\text{cm}}{\text{in}} \times \frac{\text{m}}{\text{cm}} = \text{m}$$

4) Convert 500 ft to m (1 m = 3.28 ft)

$$500 \text{ ft} \times \frac{\text{m}}{\text{ft}} = \text{m}$$

5) Convert 3 weeks to minutes

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$$3 \text{ week} \times \frac{\text{day}}{\text{wk}} \times \frac{\text{hours}}{\text{day}} \times \frac{\text{min}}{\text{hr}} = \text{min}$$

6) Convert 50 kg to g

$$50 \text{ kg} \times \text{ } = \text{g}$$

7) Convert 8500 mm to km

$$8500 \text{ mm} \times \text{ } \times \text{ } =$$

8) Convert 50 ml to cups (1 L = 4.226 cups)

$$50 \text{ ml} \times \text{ } \times \text{ } =$$

9) Convert 3 yards to inches

$$3 \text{ yd} \times \text{ } \times \text{ } =$$

10) 124 miles to cm (1 mi = 5280 ft)

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$$124 \text{ miles} \times \text{ } \times \text{ } \times \text{ } =$$