Name: **Key**

Math 9 - Imperial / Metric Conversions Practice

Use Unit Analysis to convert the following units of measure. Round all answers (where applicable) to the nearest hundredth:

1) 6 miles to feet

$$6 \text{ mi.} \times \frac{5280 \text{ ft}}{1 \text{ mi}}$$

$$= 31680 \text{ ft}$$

2) 33 feet to yards

$$33 \text{ ft} \times \frac{1 \text{ yd}}{3 \text{ ft}} = 11 \text{ yd}$$

3) 66 inches to feet

$$66 \text{ in} \times \frac{1 \text{ ft}}{12 \text{ in}} = 5.5 \text{ ft}$$

4) 5 cm to inches

$$5 \text{ cm} \times \frac{1 \text{ in}}{2.54 \text{ cm}} = 1.97 \text{ in}$$

5) 15 feet to meters

$$15 \text{ ft} \times \frac{0.3048 \text{ m}}{1 \text{ ft}}$$

$$= 4.57 \text{ m}$$

6) 64 hours to minutes

$$64 \text{ h} \times \frac{60 \text{ min}}{1 \text{ h}} = 3840 \text{ min}$$

7) 56 minutes to seconds

$$56 \text{ min} \times \frac{60 \text{ s}}{1 \text{ min}}$$

$$= 3360 \text{ s}$$

8) 5 miles to km

$$5 \text{ mi.} \times \frac{1.609 \text{ km}}{1 \text{ mi}} = 8.05 \text{ km}$$

9) 57 grams to ounces

$$57 \text{ g} \times \frac{1 \text{ oz}}{28.35 \text{ g}}$$

$$= 2.01 \text{ oz}$$

10) 12 kg to pounds

$$12 \text{ kg} \times \frac{1 \text{ lb}}{0.454 \text{ kg}}$$

$$= 26.43 \text{ lbs.}$$

Two – Step Conversions

Use Unit analysis to convert the following. Round decimal answers to the nearest tenth.

1) 2.3 miles to inches

$$2.3 \text{ mi} \times \frac{1760 \text{ yds}}{1 \text{ mi}} \times \frac{36 \text{ in}}{1 \text{ yd}} = 145\,728 \text{ in}$$

2) 765 cm to feet

$$765 \text{ cm} \times \frac{1 \text{ in}}{2.54 \text{ cm}} \times \frac{1 \text{ ft}}{12 \text{ in}} = 25.1 \text{ ft}$$

3) 4300 kg to tons

$$4300 \text{ kg} \times \frac{1 \text{ lb}}{0.454 \text{ kg}} \times \frac{1 \text{ ton}}{2000 \text{ lb}} = 4.7 \text{ tons}$$

4) 0.68 miles to metres

$$0.68 \text{ mi} \times \frac{1760 \text{ yd}}{1 \text{ mi}} \times \frac{0.9144 \text{ m}}{1 \text{ yd}} = 1094.4 \text{ m}$$

5) (3 steps): 1.2 miles to centimetres

$$1.2 \text{ mi} \times \frac{5280 \text{ ft}}{1 \text{ mi}} \times \frac{12 \text{ in}}{1 \text{ ft}} \times \frac{2.54 \text{ cm}}{1 \text{ in}} = 193\,121.3 \text{ cm}$$