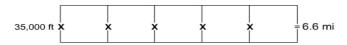
Name:			

Factor-Label (Dimensional Analysis) Worksheet:

Question 1: Commercial airlines fly at 35,000 feet. How many miles from sea level is this?



Unit factors

2.54 cm	1 m	16 oz	1000 m	5280 ft	453.6 g
1 in 12 in	100 cm	1 lb	1 km	1 mi	1 lb
$\frac{3600 \text{ s}}{1 \text{ hr}} \left(\frac{1 \text{ in}}{2.54 \text{ cm}}\right)^3$	1 mg	1 g	1 L	1 m	1000 g
	1000 μg	1000 mg	1000 mL	1000 mm	1 kg

Question 2:
An Olympic swimming pool is 25 meters long. How long is an Olympic swimming pool in feet?



Unit factors

2.54 cm	1 ft	1 m	16 oz	1000 m	5280 ft	453.6 g
1 in	12 in	100 cm	1 lb	1 km	1 mi	1 lb
	$\frac{1 \text{ in}}{54 \text{ cm}}$	1 mg 1000 μg	1 g 1000 mg	1 L 1000 mL	1 m 1000 mm	1000 g 1 kg

Question 3:
The density of white ash used in making wooden baseball bats is listed as 0.025 lb/in³. The density of aluminum used in making aluminum baseball bats is 2.70 g/cm³. What is the density of white ash in g/cm³?



Unit factors

	ft 1 m	16 oz	1000 m	5280 ft	453.6 g
	2 in 100 cm	1 lb	1 km	1 mi	1 lb
$\frac{3600 \text{ s}}{1 \text{ hr}} \left(\frac{1 \text{ in}}{2.54 \text{ c}} \right)$	$\frac{1}{1000 \mu g}$	1 g 1000 mg	1 L 1000 mL	1 m 1000 mm	1000 g 1 kg