

Name _____

Date _____

Unit Conversion

Conversions Factors

1 hr = 60 min	1 min = 60 sec	1 ton = 2000 lbs	7 days = 1 week
24 hrs = 1 day	1 kg = 2.2 lbs	1 gal = 3.79 L	264.2 gal = 1 cubic meter
1 mi = 5,280 ft	1 kg = 1000 g	1 lb = 16 oz	20 drops = 1 mL
365 days = 1 yr	1 mile = 8 furlongs	2.54 cm = 1 in	1 L = 1000 mL
0.621 mi = 1.00 km	1 yd = 36 inches	1 cc is 1 cm ³	1 mL = 1 cm ³

Solve each problem using dimensional analysis. Every number must have a unit. Plans and work must be shown. Conversion factors are given above.

1. How many miles will a person run during a 10 kilometer race?
2. The moon is 250,000 miles away. How many feet is it from earth?
3. A family pool holds 10,000 gallons of water. How many cubic meters is this?
4. Sixty miles per hour is how many feet per second?
5. A small herd of cattle consumes fourteen bales of hay in two weeks. How many bales will this herd consume in a year?
6. If a swimmer swims 85.4 yards in five minutes, how many meters will s/he swim in 70.0 seconds?

7. Saffron costs \$368.00 per ounce. Determine how many grams you can purchase for \$15.00.

8. Trent purchases 44 euros worth of souvenirs while on vacation in France. If \$1 U.S. = 0.678 euros, find the cost of the souvenirs in U.S. dollars. Round to the nearest cent.

9. If a 2 day rafting trip covers a distance of 60 miles and you are expected to raft 8 hours each day, how many miles must you raft each hour?

10. If you could dig a hole through the earth to China, how many years would it be before you got there if you dig at a rate of 4 miles per day and the diameter of earth is 12, 700 km?

11. You have been working at a fast food restaurant for the past 35 years wrapping hamburgers. Each hour you wrap 184 hamburgers. You work 8 hours per day, 5 days a week and get paid every 2 weeks with a salary of \$840.34. How many hamburgers will you have to wrap to make your first one million dollars?