Unit 5 Review Problems I

1. If a car changed its velocity from 1.20 m/s to 2.38 m/s in .0310 seconds, what is the acceleration?
2. If a car has an acceleration of 15.225 m/s2, an initial velocity of 13.00030 m/s and a time of 1.0015 seconds, what is the final velocity?
3. If a car had an acceleration of 4.00033 m/s2, an initial velocity of 5.00020 m/s and a final velocity of 64.00005 m/s, what was the time?
4. If a car accelerated from 17 m/s to 25 m/s in 25 s, what is the acceleration?
5. If it took you 2.5 hours to travel 185 miles, what was your average speed?
6. If you were at a stop sign and it took 7.50005 s to reach a speed of 2.50001 m/s, what was your acceleration?
7. If you were traveling 5.500005 m/s and stomped on your brakes to have a final velocity of 3.50005 m/s in 4.50002 s, what would your acceleration be?
8. If an object had an acceleration of 4.5005 m/s2, a time or 8.90005 s and an initial velocity of 2.50005 m/s, what is its final velocity?

Dimensional Analysis

1. How many Kg are in 95 pounds?
2. How many liters are in 40 quarts?
3. How many inches are in 1250 cm?
4. How many yards are in 2400 m?
5. How many gallons are in 2.987 liters?

Use these to make your conversion factors:

1 Inch = 2.540 cm 1 Kg = 2.2046 lb

1 Liter = 1.056 qts. 1 gal. = 4 qts.

1m = 100 cm

Metric Conversions

Make the following metric conversions:

1. 1,000,000 g = \_\_\_\_\_\_ Kg
2. 1,259,000 Dkl = \_\_\_\_\_\_\_\_\_\_\_ ml
3. 15,000 mg = \_\_\_\_\_\_\_\_\_\_\_\_\_\_ hg
4. 678 Km = \_\_\_\_\_\_\_\_\_\_ dm

5. 15 m = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Hm

1. .00006 L = \_\_\_\_\_\_\_\_\_\_\_ ml

7. 5.561 mg = \_\_\_\_\_\_\_\_\_\_g