Name _____   Period _____

Physics 9
Science Math

This sheet is for your practice.

1.   A particular track event has runners going 400 meters. How far is this in cm? $4x10^4$ cm

2.   A pencil "lead" is specified to be 0.050 mm in diameter. What is the diameter in meters?
      $5x10^{-5}$ m

3.   A 24 oz pop bottle holds 710 mL, what is this volume in liters? 0.710 L

4.   A particular medicine advertises 50 mg per tablet. How many kilograms is this? $5.0x10^{-5}$ kg

5.   You have 75 kg of paper to distribute. You are told that each person need 34 mg of paper. How
      many people can get the correct amount of paper?   2,206,000

6.   You are preparing for a party and want to provide 650 mL of juice for each person. 84 people have
      been invited to the party, how many liters of juice should you prepare? 54.6 L

7.   You are in charge of a restaurant and expect 250 people for lunch. If the only thing on the menu is
      chicken and you want to put 85 grams of chicken on each lunch, how many kilograms of chicken do
      you need? 21.25 kg

8.   If you have lived for 14 years (to the second), how many seconds have you been alive?
          441,818,496 seconds

9.   If somebody says "I've done that a billion times!" and you know they do it 20 times per day, how
      old must they be? 137,000 years old

10.   You are working for a company that makes paperclips. Each paperclip has a mass of 5.00 g. If you
      want to make 150 million paperclips, how many kilograms of iron (or steel) will you need?
          750,000 kg

11.   Five people time a 100 m track race. The values they report to the recorder are
      10.93 seconds
      10.56 seconds
      11.00 seconds
      10.83 seconds
      10.85 seconds

      a) What is the average time for this runner for this race?   10.83 seconds
      b) What is the size of error (± _____ seconds) for this race?   ±0.27 seconds

12.   In 2013 Joey Chestnut ate 69 hot dogs – with buns
      (http://en.wikipedia.org/wiki/Nathan's_Hot_Dog_Eating_Contest) in 10 minutes. If you wanted to
      have 20 people in a hot dog eating contest that might break Joey's record and each hotdog is 90.0 g,
      how many kilograms of hotdogs do you need to have on hand?   124.2 kg

Which is Greater?

1) 63 cm   6 m   2) 5 g   508 mg   3) 1,500 mL   1.5 L

4.) 536 cm   53.6 dm   5) 43 mg   5 g   6) 3.6 m   36 cm

Write the correct abbreviation for each metric unit.

1) kilogram _____   4) milliliter _____   7) kilometer _____

2) meter _____   5) millimeter _____   8) centimeter _____

3) gram _____   6) liter _____   9) milligram _____

Try these conversions.

10) 2000 mg = _____ g   15) 5 L = _____ mL   20) 16 cm = _____ mm

11) 104 km = _____ m   16) 198 g = _____ kg   21) 2500 m = _____ km

12) 480 cm = _____ m   17) 75 mL = _____ L 22) 65 g = _____ mg

13) 5.6 kg = _____ g 18) 50 cm = _____ m 23) 6.3 cm = _____ mm

14) 8 mm = _____ cm   19) 5.6 m = _____ cm   24) 120 mg = _____ g

Measure 5 objects through out the classroom using an appropriate unit. After the initial measurement please covert it to the unit of your choice.

OBJECT   measurement (unit)   Converted Measurement

1.

2.

3.

4.

5.