**Quiz#2: Units of Measurement**

*Directions: Read all questions carefully. Write or choose the BEST answer. For all problems requiring calculations, you MUST SHOW ALL YOUR WORK. Do NOT forget your UNITS. You will receive partial credit if you set up the equations correctly.*

1. Which of the following statement best describes a hypothesis:
   1. That dude’s opinion
   2. A testable statement
   3. A prophecy
   4. A questionable statement that is deemed irrelevant to most conversations
2. The \_\_\_\_\_\_\_\_\_\_\_ is the system that scientists all over the world have agreed to use.
   1. Le Systeme International d’Unites (SI)
   2. British Imperial System
   3. Scientific Standards
   4. Scientific Measurements
3. What is the SI standard unit for length?
4. What is the SI standard unit for volume?
5. What is the SI standard unit for mass?
6. Mass is \_\_\_\_\_\_.
   1. length times width times height
   2. the gravitational pull on an object
   3. changes with location
   4. the measurement of the amount of matter
7. Volume is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
8. Write down the formula for density.
9. An object has a mass of 50 grams and a volume of 10 cm3. What is its density? Show all your work.
10. An object has a density of 15 g/cm3 and a volume of 2 cm3. Calculate its mass. Show all your work.
11. An object has a density of 30 g/cm3 and a mass of 15 g. What is its volume? Show all your work.
12. Express your answer from number 9 in scientific notation.
13. Express the following numbers in scientific notation.

* 90,000
* 75,400
* 10,000,000
* 0.0005
* 0.00067

1. Express 10 grams in milligrams. Show all your work.
2. Calculate. DO NOT forget your units.

* (5 x 103 kg)(3 x 105 kg) =
* (9 x 102 m)/(3 x 101 m) =
* (5.5 x 103) + (4 x 103) =