

Due: Wednesday, September 1

## Scientific Notation, Significant Figures, Unit Conversion, Problems involving Unit Conversion?

1. Convert the following to exponential form or from exponential form. Use the correct number of significant figures, and be careful with the zeros.

a. 63,048 \_\_\_\_\_

b.  $6.32 \times 10^4$  \_\_\_\_\_

c.  $6.30 \times 10^{-3}$  \_\_\_\_\_

d. 236.00 \_\_\_\_\_

e. 236,000 \_\_\_\_\_

f. 0.000,236 \_\_\_\_\_

g. 0.000,236,00 \_\_\_\_\_

2. Handling significant figures when multiplying and dividing: Answer the following with in scientific notation \*with the correct number of significant figures\*

a.  $3.0 \times (3.58 \times 10^3) =$  \_\_\_\_\_

b.  $3.0 / (3.58 \times 10^3) =$  \_\_\_\_\_

3. Handling scientific notation and significant figures when multiplying and dividing: Answer the following with in scientific notation \*with the correct number of significant figures\*

a.  $6.41 \times (3.00 \times 10^8)^2 =$  \_\_\_\_\_

b.  $(4.100 \times 10^{-3}) \times (3.58 \times 10^{13}) / (2.58 \times 10^6) \times (3.678 \times 10^{-3}) =$  \_\_\_\_\_

More on other side....

4. SI Units

- a. How many millimeters are there in 26 km?
  
- b. How many micrometers are there in 26 km?

5. Conversion Problems

- a. 1 calorie (cal) equals 4.184 Joules (J). How many Joules are equal to 63 calories?
  
- b. How many seconds are there in 2.32 weeks?

Did you remember to write your name on the front?