**MEASUREMENT UNIT REVIEW**

**Unit Conversions**

* 1. The distance to the moon is 238,855 miles. How many meters is this? (1mi = 1610m)
  2. Speed of sound, 740 miles per hour, in kilometers per hour and meters/sec.
  3. Length of a C-C bond in diamond, 1.54452 Å (angstrom), in cm and m.

**Metric System:**

* 1. What is the multiplier for Mega?
  2. What is the symbol for micro?
  3. Conversions: Show all your unit conversions like this:

6.2 kL = \_\_\_\_\_mL

6.2 kL x 1000 L x 1000 mL = 6.2 x 106 mL

1kL 1L

1. 3s = \_\_\_\_ ms
2. 3125 L = \_\_\_\_kL
3. 7.8 g/mL = \_\_\_\_ kg/L
4. 16 cm/s = \_\_\_\_km/ks
5. 51 kg/hr = \_\_\_\_\_g/s
6. \_\_\_\_nm2 = 89700000m2
7. \_\_\_\_mm3 = 1.876 m3
8. 4 Mm = \_\_\_\_\_\_\_\_\_ cm

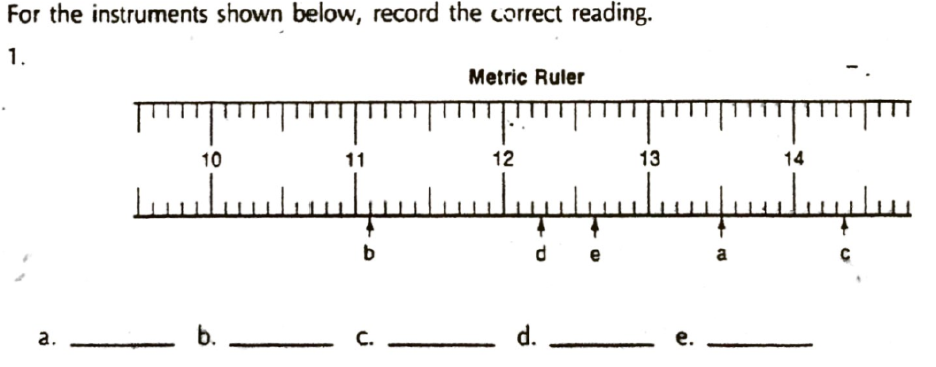
**Scientific Notation**

* 1. Perform the indicated operations and express your answer in scientific notation.

1. (1.81 x 10-3) (1.06 x 10 20) =
2. (5.77 x 10 –4) ( 1.71 x 10 –11) =
3. 1.17 x 104 - 3.57 x 102 =
4. 1.34 x 1024 – 2.22 x 102 =

**Uncertainty, Precision, Accuracy:**

* 1. Define Precision
  2. Define Accuracy
  3. Give the correct measurement in cm:



**Significant Figures**

* 1. How many Sig Figs?

1. 46.37
2. 0.00872
3. 15.285
4. 15.285
5. 150 000 000
6. 870 000
7. 0.00960
8. 4.59 x 10-5
   1. Round off to the indicated number of Sig Figs:
9. 195.259 (4) e. 0.014625 (3)
10. 24.603197 (4) f. 52196.942 (3)
11. 0.00000439 (2) h. 60000. (3)
12. 216.452 (1) i. 4356 (2)
    1. Calculate and give answers to the correct number of significant figures

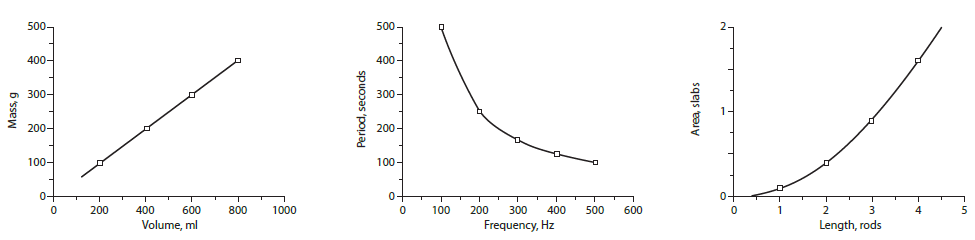
a. 16.7205 b. 12.112 c. 167 = d. 0.0000004120 =

3.84 - 2.9 - 27.3 0.0000012785

+12.709

1. 4.2 x 1.7 = f. 14 x 0.05 = g. 165 x 12 =
2. 9.34 x 0.07146 – 6.88 x 0.081 15 =
3. 0.341 x (18.64 – 6.00) x 3.176 =

**Graphing:**

* 1. What is a best fit line?
  2. What is slope?
  3. What are two ways to calculate slope?
  4. ****Define the two types graphing relationships one the right.
  5. Which is the independent variable on the graph below?

