

## **Chpt 2 rev 2b** **Another Great Review**

*Hint: When no uncertainty is listed with a measurement you have to assume that the estimated value is in 10 divisions!*

*Round the following measurements to the number of sig. figs. listed:*

- |                |                                 |                 |
|----------------|---------------------------------|-----------------|
| 1. (3) 3.145 m | 2. (1) 9.80665 m/s <sup>2</sup> | 3. (2) 9.9634 m |
| 4.. (1) 57 km  | 5. (4) 0.00234517 mm            | 6. (3) 80966 g  |

*Perform the following operations using sig. Figs.:*

- |                        |                                    |
|------------------------|------------------------------------|
| 7. 44.98 g + 6.9 g =   | 8. 1.235 kg x 0.8 m/s =            |
| 9. 0.9965 N x 1.2 s =  | 10. 0.02 m/s divided by 2.35 m/s = |
| 11. 35.5 ml – 1.7 cl = | 12. 0.237 kg + 2.5 g + 135 mg =    |

*List the uncertainty of each measurement and % of each:*

- |                 |                     |
|-----------------|---------------------|
| 13. 9.80665 m/s | 20. 186,000 miles/s |
|-----------------|---------------------|

*List the uncertainty of each operation and % of each:*

14. Volume of a ball if its radius is  $2.3 \times 10^{-1}$  m? ( $V = \frac{4}{3} \pi r^3$ ) (use 3.14 for  $\pi$ )

15. Density of a sample of “goop”? (Density =  $m/V$ ) List answer in  $\text{kg/m}^3$  and  $\text{g/cm}^3$   
 $m = 3.45 \text{ kg}$     $V = 0.845 \text{ m}^3$    ( $1\text{m}^3 = 1 \times 10^6 \text{ cm}^3$ )

16. *Put the following Measurements into Standard Scientific Notation:*

- |           |                   |           |
|-----------|-------------------|-----------|
| 0.00456 = | 93,000,000 miles= | 3.45 m=   |
| 13.3 g =  | 0.78 kg=          | 100.0 kg= |