| | | | |
|---|---|---|---|
| 7. 0.00308 | $3.08 \times 10^{-3}$ | 7. $1.1 \times 10^{-2}$ | 0.011 |
| 8. 0.407 | $4.07 \times 10^{-1}$ | 8. $1.5 \times 10^{6}$ | 1,500,000 |
| 9. 3140700000 | $3.1407 \times 10^{5}$ | 9. $4.67 \times 10^{-2}$ | 0.0467 |
| 10. 0.00715 | $7.15 \times 10^{-3}$ | 10. $9 \times 10^{4}$ | 90,000 |

**Determine how many significant figures are in each of the following measurements:**

1. 0.0078030 m 5
2. 33.800 g 5
3. 2100.0 N 5
4. 38,500 miles 3
5. 5,000,001 mm 7
6. 7.05 J 3

**Round each of the following measurements off so that they each contain 3 significant figures (you may use scientific notation if you prefer):**

7. 700.2 g $7.00 \times 10^{2}$ g
8. 999.9 Hz $1.00 \times 10^{3}$ Hz
9. 12.68 cm 12.7 cm
10. 7,047,011 mg $7.05 \times 10^{6}$ mg

**Perform the prescribed operations. Round your answers to the proper number of significant figures. Include the appropriate units in your answer.**

11. 92.43 m / 5.77 s = 16.0 $\frac{m}{s}$
12. 41.34 g + 52.482 g + 42.9 g = 136.7 g
13. 5.28 m x 12.99 m = 68.6 $m^2$
14. (7.36 m / 1.23 s) / 3.4 s = 1.8 $\frac{m}{s^2}$
15. 5.28 V x 3 = $2 \times 10^{1}$ V