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| Significant Figures Problem SetChem B11 | Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Lab Period\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

1. How many significant figures are in the following numbers?

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 6.06 g |  | 1000 cars |  | 85% |  | 1.06 qt/L |  |
| 25.0 mL |  | 1.05 x 105 m |  | 25 tablets |  | 45 miles/hr |  |
| 0.000059 m |  | 1001 in |  | 10250. mcg |  | 24 hrs/day |  |
| 105100 lb |  | 30.8 mg |  | 5.6 x 10-7 g |  | 1000 m/km |  |

1. Scientific Notation. Keep the same number of significant figures.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| 2.74x10-4 |  | 4.06x104 |  | 100010000 |  |
| 5.01x106 |  | 3.2x10-2 |  | 0.000700 |  |
| 1.1x10-3 |  | 6x10-6 |  | 50.0 |  |

1. Calculations: do the following math problems giving the answer with the right number of significant figures. Round your answers in the right way according to sig fig rules.

|  |  |
| --- | --- |
| 1. 11.1 + 12.06 + 10 =
 | g. 25.0 x 10.00 =  |
| 1. 12500 + 2330 - 1000 + 10.6 =
 | h. 66/100.9 =  |
| 1. 0.0045 + 0.04602 – 0.0000020 =
 | i. (15.2 x 23)/26.34 =  |
| 1. 4 x 10-3 x 3 x 10-2 x 2 x 10-4=
 | j. 6.21 x 1040/(4.678 x 10-50) |
| 1. 8 x 102/(2 x 10-7) = k.
 | $$\frac{2.345x10^{2} x 1.1x10^{3} x 9.1x10^{-1}}{(4.678x10^{4} x 6.21 x 10^{5})}= $$ |
| 1. 9 x 10-4 x 3 x 107/(1.2 x 106) =
 |  |

1. What do you see? Read the following measurements with the right number of significant figures. (the scale is in mL)



Reading:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



Reading:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



Reading:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_