**Homework #2 Chemistry 1114 (Fong) due Wed 6 Sept Sept 2017 10 pts**

**(in class)**

**Your name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_ANSWERS\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1) convert 0.00035 to scientific notation \_\_\_\_\_3.5\*10‑4\_\_\_\_\_\_\_\_\_\_

2) Best prefixed expression for 5\*10-7 s\_\_\_\_\_\_\_500 ns\_\_\_\_\_\_(0.5 μs ok)\_\_\_\_\_\_

5\*10‑7 = 5\*10‑1\*10‑6 =0.5 μs or 5\*10-7 =5\*10+2\*10\_9 = 500\*ns

3) Best prefixed expression fo 8.1\*108 g \_\_\_\_\_\_810 Mg\_\_\_\_\_\_(\_0.81 Gg ok)\_\_\_\_\_

8.1\*108 =8.1\*10-1\*109 =0.81 Gg or 8.1\*108 =8.1\*102\*106 =810 Mg

4) 3 Mm = \_\_\_\_\_\_3\*108 \_\_\_\_\_\_\_\_\_\_\_\_\_\_ cm 3\*M~~m~~ = 3\*106 =3\*106-(-2)=3\*108

c~~m~~ 10-2

5) 5 ps = \_\_\_\_\_\_\_\_5\*10-3\_\_\_\_\_\_\_\_\_\_\_\_\_ ns 5 p~~s~~ =5\*10-12 =5\*10-12-(-9)=5\*10‑3

n~~s~~ 10-9

4) 250 cg = \_\_\_\_\_\_250\*10-5=2.5\*10-3\_\_\_\_\_ kg 250 c~~g~~ =250\*10-2 = 250\*10-2-3=2.5\*10-3

k~~g~~ 10+3

Sig fig count for numbers below:

|  |  |  |  |
| --- | --- | --- | --- |
| 0.0010 | 50000 | 2.0002000 | 6.626\*10-34 |
| 2 | 1 | 8 | 4 |