#5

Chemistry WorkSheet #1 Name_____
Scientific Notation & Significant Digits Date_____Period_____

1. Express the following In scientific notation:

A. 314,000 3.14×10^{5} C. 21,400 2.14×10^{4} E. 0.00101 1.01×10^{-3}

B. 0.037 3.7×10^{-2} D. 0.0000237 2.37×10^{-5} F. 18,000,000 1.8×10^{7}

2. State the number of significant digits are In the following:

A. 4.07500 6 C. 314.713 6 E. 0.0002233 4

B. 3.1249 5 D. 0.010101 5 F. 1,840,300 5

3. Solve the following. Give answers In significant digits.

A. $\frac{(41.55)(3.0)}{6.003} = 21 = 2.1 \times 10^{1}$

F. $(4.113)(0.005) = .02 = 2 \times 10^{-2}$

B. $(4.71 \times 10^{-5})(6.60 \times 10^{7})$ $3110 = 3.11 \times 10^{3}$

G. $\frac{8.47 \times 10^{7}}{3.3 \times 10^{3}} = 26{,}000 = 2.6 \times 10^{4}$

C. $(3.7 \times 10^{7})(4.59 \times 10^{21})$ 1.7×10^{29}

H. $(4.5 \times 10^{-3})(5.2 \times 10^{4})$ $230 = 2.3 \times 10^{2}$

D. $\frac{(4.49 \times 10^{3})(8.3 \times 10^{12})}{6.68 \times 10^{7}} = 5.6 \times 10^{8}$

E. $\frac{(1.241 \times 10^{-4})(3.6 \times 10^{4})(4.773 \times 10^{8})}{(4.9 \times 10^{-2})(8.7 \times 10^{3})} = 5.0 \times 10^{6}$