

**Chem 140 Worksheet 1 Exponential Notation and Significant Figures 20 points**

10 points 1. Significant Figures: Determine the number of significant figures, convert to scientific notation and round to three significant figures.

	<b>Number of Significant Figures</b>	<b>Scientific Notation</b>	<b>Round to 3 Significant Figures</b>
500.0			
0.1052			
589.561			
6898			
0.01250			
0.007299			
1123			

10 points 2. Significant Figures in Calculations. Give the answers to the following with the correct number of significant figures. Show your work or no credit. This means to show your answer before and after the correction for sig figs. Assume all numbers are measured values unless otherwise indicated. You must clearly indicate your answer by circling or underlining. If your answer is not clear to me you will receive no credit.

$$350.00 \times 0.00072$$

$$3554/2.22$$

$$(2.332 \times 4.00)/(3.200 \times 6.73)$$

$$0.06 + 1.32 + 7.901$$

$$2.10 \times (5.73 - 2.00)$$

$$200 + 17 + 24 + 40$$

200 and 17 are exact 24 and 40 are measured

$$(200 \times 17) / (24 \times 40)$$

200 and 17 are exact 24 and 40 are measured

$$(2.340 \times 10^{-3}) \times (2.60 \times 10^6)$$

$$(5.405 \times 10^6) + (3.09 \times 10^5)$$

$$(7.456 \times 10^8) - (5.00 \times 10^2)$$