Significant figures worksheet

1. Round off the following numbers to three significant figures:
   a) 35.234 _____
   b) 2.34521 _____
   c) 0.035219 _____
   d) 2 533 521 _____
   e) 6 255 520 000 _____

2. Give the largest and smallest value of the approximate number

   35.21 ± 0.02 g _____

3. Five different voltmeters are used to measure the voltage in a circuit. Given that the following measurements are made, determine the average and uncertainty.

   25.61 V, 25.63V, 25.65V, 25.64V, 25.63V

4. Complete the following computations:

26.215 - 0.3 = _____	65.222 + 1.03 = _____	22 - 0.01 = _____
10 + 0.1 = _____	33.3 + 0.35 = _____	29.39 + 0.2 = _____
25 x 3 = _____	3.35 x 0.26 = _____	799 x 877 = _____
(6.2×10^{3}) (3.55×10^{12}) = _____	$\frac{(6.3 \times 10^{7})(2.51 \times 10^{-7})}{(3.214 \times 10^{-5})}$ = _____	$\frac{(7.52 \times 10^{16})(3.1 \times 10^{12})}{(2.5 \times 10^{-7})}$ = _____
25.31 + 6.4 = _____	22.0 + 0.04 = _____	35.271 + 0.2 = _____
25.217 + 0.017 + 0.25 - 0.177 = _____	51.71 x 22.3 = _____	22.7 + 0.77 = _____
$3.5 \times 10^{2} \div 3.1 \times 10^{3}$ = _____	$\frac{(2.00 \times 10^{23})(3.51 \times 10^{-22})(3.5 \times 10^{3})}{(7.5 \times 10^{-3})(3.511 \times 10^{12})(6.6 \times 10^{-6})}$ = _____	22 x 305 = _____