

Practice Problems, Numbers Reporting and Calculations. (Key)

Remember: +/- follow greater uncertainty while X/+ follow the lesser number of sig. Fig. .

	Sig. Figs.	Sci. Notation	Uncertainty
1.60	3	1.60×10^0	± 0.01
1.002	4	1.002×10^0	± 0.001
0.673	3	6.73×10^{-1}	± 0.001
0.000907	3	9.07×10^{-4}	± 0.000001
0.10003	5	1.0003×10^{-1}	± 0.00001
78.2	3	7.82×10^1	± 0.1
340.	3	3.40×10^2	± 1
1200	2	1.2×10^3	± 100
301.03	5	3.0103×10^2	± 0.01
5700	2	5.7×10^3	± 100
980070	5	9.8007×10^5	± 10
72104000000	5	7.2104×10^{10}	± 1000000
0.000000120	3	1.20×10^{-7}	± 0.000000001
380010000	5	3.8001×10^8	± 10000

Calculate and express to correct number of sig. Figs.

$$901 + 1.23 + 11.7 = 914$$

$$(1.2 \times 10^{-2})(9.07 \times 10^{-3}) = 1.1 \times 10^{-4}$$

$$7800 + 23 = 7800$$

$$43.0 - 56 + 78.12 = 65$$

$$\frac{(6.65 \times 10^{-7})(8.937 \times 10^{-3})}{7.2 \times 10^4} = 8.3 \times 10^{-14}$$

$$\frac{(6.3401 \times 10^{-9})(2.821 \times 10^{-2})}{(2.201 \times 10^8)(901.75)} = 9.011 \times 10^{-22}$$

$$\frac{23.7 + 7601 + 12.5 - 73.7}{9.87 \times 10^{-2}} = 76600 = 7.66 \times 10^4$$

$$12000 + 8700 + 13067 - 9750 = 24000$$