

Find the Average and its uncertainty of the following data set:

$$1) \quad \underline{72310, + 78230, + 76430, + 73020}$$

$$= 74997.5$$

$$2) \quad 78230 - 72310 = 5920$$

$$3) \quad \frac{5920}{2} = 2960$$

$$4) \quad 2960 \Rightarrow 3000$$

$$5) \quad 74997.5 \pm 3000$$

$$\boxed{75000 \pm 3000}$$

Significant Figures

10-7-15

Significant Digits

Sig figs

Significant figures are highlighted

Rule	Significant	Not Significant
1. All Non-zero numbers are always significant	$\underline{1}, \underline{2}, \underline{3}, \underline{4}$ $\underline{5}, \underline{6}, \underline{7}, \underline{8}$ $\underline{9}, \underline{1}, \underline{2}$	0
2. All zeros between significant numbers are significant	$\underline{7} \underline{0} \underline{9}$ $\underline{1} \underline{1} \underline{0} \underline{4}$ $\underline{20.3}$ $\underline{600000001}$	$\underline{10}$ $\underline{4030}$
3. All zeros which are SIMULTANEOUSLY to the right of the decimal AND at the end of a number are always significant.	$\underline{119.20}$ $\underline{0.00340}$ $\underline{11.090}$ $\underline{21.210}$ $\underline{44.440}$ $\underline{30.0}$	
4. All zeros which are to the left of a written decimal point are always significant.	$\underline{30.}$ $\underline{4000.}$	$\underline{30}$

$320.$