

P11 - 1.4 - Significant Figures Notes

Natural Numbers

Accuracy
Precision

Natural Numbers (1,2,3...) are Significant

123 3 sig figs
12 2 sig figs
9876 4 sig figs

Reading a device, Round to half the smallest measurement.
Bottom of the meniscus.

Zero's

Leading Zeros aren't significant

0.4 1 sig fig
0.044 2 sig figs

Middle zeros are Significant

505 3 sig figs

Trailing Zeros

With a Decimals are significant

0.40 2 sig figs
10. 2 sig figs

If No Decimal, trailing zeros aren't significant

10 1 sig fig
100 1 sig fig

Adding/Subtracting (Same 10 to the...)
Round answer to least # decimal places

$5.55 + 5.1 = 10.65 = 10.7$

Multiplication/Division
Round answer to least # sig figs

$11 \times 8 = 88 = 90$

Absolute Error = Experimental - Actual

$$\% \text{ Error} = \frac{| \text{Absolute Error} |}{\text{Actual}}$$

10.	1.0×10^1	2 sig figs
100.	1.00×10^2	3 sig figs

10 humans No sig figs?