

Precision vs. Accuracy

Def:

Precision - how close measurements are to each other

Accuracy - how close measurements are to ~~each other~~ Target

% error

measurement of accuracy

$$\frac{|\text{your value} - \text{literature val.}| \times 100}{\text{literature value}}$$



precise but not accurate



accurate but not precise

Significant Figures

Purpose:

• Reflect the ^{Precision}~~accuracy~~ of the measuring device

• Allow data to reflect the ~~accuracy~~ of the measurement
^{Precision}

Used

• on measured quantities only

Ex.

Not used on conversions that are exact!! 12 in = 1 ft