

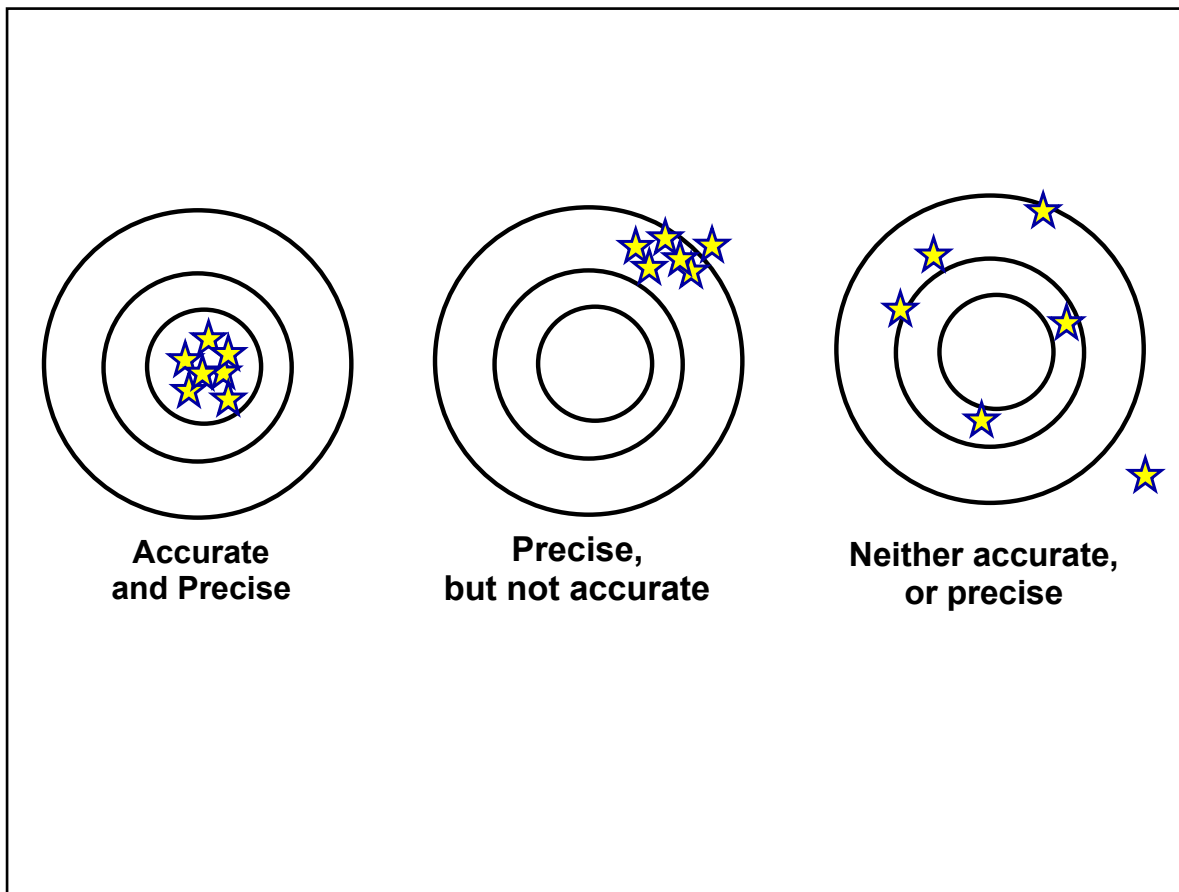
Accuracy, Precision, and Error

- It is impossible for scientists to make perfect measurements.
- Accuracy, Precision, and % Error allow scientists to put numerical values to these imperfections.

Accuracy: How close a measurement is to the accepted value

% ERROR: Numerical representation of accuracy
e.g., "I earned a 8/10 on my quiz; I had 20% error."

Precision: How close your measurements are to each other



$$\% \text{ error} = \left| \frac{\text{accepted} - \text{experimental}}{\text{accepted}} \right| \times 100\%$$