

Accuracy vs. Precision

Aspect	Accuracy	Precision
Definition	The closeness of a measured value to a standard or known value.	The closeness of two or more measurements to each other.
Focus	Correctness of measurement relative to the true value.	Consistency of measurement results under the same conditions.
Dependence	Accuracy is dependent on the true value.	Precision is independent of accuracy and the true value.
Example	If a scale shows your weight as exactly what it truly is, it's accurate.	If a scale shows the same weight every time you use it, it's precise.
Illustration	Throwing darts that all land on the bullseye.	Throwing darts that land close to each other but not near the bullseye.
Measurement Error	Error describes how far a measurement is from the true value.	Error describes how spread out repeated measurements are.
Quality Indicator	Indicates how close a measurement is to the correct value.	Indicates how repeatable measurements are, regardless of accuracy.