

Accuracy

Accuracy is a gauge of how close the measured value is to the true value. The accuracy of a measurement refers to the number of significant digits. See Section 1.6.

Example 1 - Gabe is measuring a length of connector hose. He measures it three times. The values he gets are 2.1 feet, 2.2 feet, and 2.2 feet. The actual value is 2.15 feet. How accurate are Gabe's three measured values?

Step 1. The accuracy of the measurements is the difference between the true value and the measured value.

$$2.15 - 2.1 = 0.05$$

Step 2. Repeat the same process for the other measurements.

$$2.15 - 2.2 = -0.05$$

The accuracy of the measurement is ± 0.05 feet.