

Math 1030 #7c

Dealing with Uncertainty

Accuracy vs. Precision

Accuracy - how closely a measurement approximates a true value.

Precision - describes the amount of detail in a measurement.

EX 1:

Suppose your true weight is 120.7 lb. The scale at the doctor's office measures your weight as 121.72 lb. The scale at the gym measures your weight as 120.4 lb.

a) Which scale is more precise?

b) Which is more accurate?

EX 2:

Suppose your actual height is 5 feet and 5.2 inches. A tape measure which can be read to the nearest $\frac{1}{8}$ of an inch gives your height as $65\frac{3}{8}$ inches. The laser device at the clinic that gives readings to the nearest hundredth of an inch says you are 65.31 inches.

a) Which is more precise?

b) Which is more accurate?

