Measurement Practice Quiz

**Learning Goal 5: I can evaluate the accuracy, precision, and percent error of a measurement.**

Accuracy:

Precision:

Pretend that you have measured the mass and volume of an object and used this information to determine that the density of the object is 6.54 g/mL. You later are told that the actual density of the object is 10.22 g/mL. What is your percent error?

% error = |experimental value – actual value| x 100

actual value

**Learning Goal 6: I can explain the importance of significant figures in a measurement and identify the number of significant figures in a measurement value.**

Determine the number of significant figures in the following numbers.

1. 0.00004701
2. 80.00
3. 4000
4. 8009
5. 0.0005040

**Learning Goal 7: I can round calculated values to the correct number of significant figures/decimal places.**

Round the following numbers to 3 sig figs.

1. 8.442
2. 0.0005178
3. 53921
4. 658943.21

Calculate the following and **round the answers to the correct number of digits.**

1. 4.5 x 703 x 21 =
2. 3.0 + 4.62 + 2.777 =
3. 9.8825/26 =
4. 9 – 3.00 =

**Learning Goal 8L: I can measure to the correct number of significant figures.**

Record the proper measurements for the following:







