Accuracy and Precision/Percent Error Worksheet   Name: _____

Chemistry

1 point   Date: _____ Hour: _____

A measurement was taken three times. The correct measurement was 68.1 mL. Circle whether the set of measurements is accurate, precise, both, or neither.

       a)   78.1 mL, 43.9 mL, 2 mL   accurate   precise   both   neither

       b)   68.1 mL, 68.2 mL, 68.0 mL   accurate   precise   both   neither

       c)   98.0 mL, 98.2 mL, 97.9 mL   accurate   precise   both   neither

       d)   72.0 mL, 60.3 mL, 68.1 mL   accurate   precise   both   neither

In each of the following questions, calculate the percent error. Show your work!

1)   A student measured the string as 1.25 m long. The teacher said it was actually 2.12 m long. What was the student's percent error?   [41%]

2)   The teacher said the volume of liquid was 500.0 mL. When measured, a student found it was 499.7 mL. What was the student's percent error?   [0.06%]

3)   A standard mass of 250.0 g was placed on a balance. The balance said it had a mass of 243.9 grams. What is the balance's percent error?   [2.4%]

4)   A teacher calculated the percent of sodium in the compound as 54%. The reference book said it was actually supposed to be 76%. What was the teacher's percent error?   [29%]

5)   There were 34 questions on a test. Even the best student in the class only got 22 correct. What was the best student's percent error?   [35%]