

Accuracy and Precision/Percent Error Worksheet  
Chemistry  
1 point

Name: \_\_\_\_\_

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?
- 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?
- 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?
- 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?
- 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?