

Accuracy and Precision

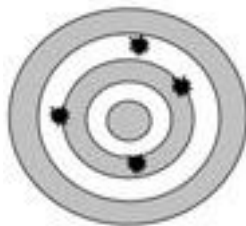
1. Define the term accuracy.
2. Define the term precision.
3. What is the formula for percent error?
4. Use the following diagrams to answer the questions below.



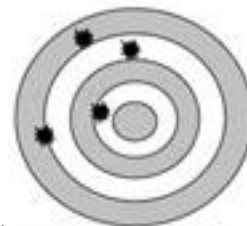
A.



B.



C.



D.

- ① Which diagram shows accuracy but not precision?
 - ② Which diagram shows precision but not accuracy?
 - ③ Which diagram shows neither accuracy nor precision?
 - ④ Which diagram shows both accuracy and precision?
5. Use the following table to answer the questions below.
 6. In the lab, a student measured the volume of a container to be 65 liters. However, the real value for the volume is 50. liters. What is the percent error?
 7. Three lab groups measured the mass a metal sample. Their measurements made in three trials are listed in the table below.

	Group 1	Group 2	Group 3
Trial 1	4.31 g	4.29 g	4.50 g
Trial 2	4.51 g	4.31 g	4.49 g
Trial 3	4.41 g	4.32 g	4.51 g
Average			

- a. Calculate the average mass for each group.
- b. The actual mass is 4.30 g. Describe each group's results in terms of accuracy and precision.