Answer the following questions. Show all work and box answers.

4. An object has a mass of 35.00 grams. On Luixandra's balance, it weighs 33.95 grams. What is the percent error of this balance?

5. Each of five students used the same ruler to measure the length of the same pencil. These data resulted: 15.33 cm, 15.34 cm, 15.33 cm, 15.33 cm, 15.34 cm. The *actual length* of the pencil was 15.85 cm. Describe whether accuracy and precision are good or poor for these measurements.

6. A chemistry student measured the boiling point of naphthalene ($C_{10}H_8$) at 231.0°C. What is the percent error for this measurement if the literature value is 217.9°C?

7. Samantha S. Sloppiness measured the volume of her soda before she drank it for her midmorning snack. She measured the volume of the 12 oz. bottle to be 14 oz. What is the percent error?

8. Clyde Clumsy was directed to weigh a 500 g mass on the balance. After diligently goofing off for ten minutes, he quickly weighed the object and reported 458 g. What is his percent error?