

Name: Anzwer Key

Percent Error

Directions: For each of the following situations find the percent error involved.  
Be careful in determining the true vs. observed value.

1. 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.

$$16.6\%$$

2. 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.

$$8.4\%$$

3. Pretty Patty Pestilence had casually recorded her grades for the nine weeks in her notebook. She concluded she had 250 points out of 300 for the grading period. However, Miraculous (chem teacher) determined she

had 225 points out of 300 and awarded her a "C" for the grading period.

$$11.7\%$$

4. Drew D. Dingaling came to Miraculous with a problem. Drew was told to measure 50 cm of copper wire to

use in an experiment. Since his ruler only measured to 45 cm he used this amount of wire and his experiment was a failure.

$$10\%$$

5. Henry Heavyfoot was just arrested for speeding by Officer O'Rourke for traveling 65 mph in a 55 mph zone.

Henry claimed his speedometer said 55 mph not 65 mph.

$$15.4\%$$

6. Willomina Witty was assigned to determine the density of a sample of nickel metal. When she finished, she reported the density of nickel as 5.59 g/ml. However, Miraculous knew the density of nickel was 6.44 g/ml.

$$13.2\% \text{ rounded to the tenths place}$$

7. An experiment to determine the volume of a "mole" of a gas was assigned to Barry Bungleditup. He didn't

read the experiment carefully and concluded the volume was 18.7 liters. Miraculous knew he should have obtained 22.4 liters.

16.5% rounded to the tenths place.

8. Dennis wants to buy a card for his wife. Dennis calculates the amount of card as \$4.50. The actual price of card is \$4. What is Dennis's percent error?

12.5%

9. Elena's math class had 24 students yesterday. She miscounted the class total and recorded it as 20 students. What is Elena's percent error?

16.6%

10. Sabrina calculates the cost of book as \$50. The actual price was \$56. What is Sabrina's percent error?

10.7% rounded to the tenths place.

11. Hunter wants to purchase umbrella for \$60. The actual price of umbrella is \$50. What is Hunter's percent error?

20%

12. Marina thinks the cost to rent scooters was \$100. The actual price is \$150. What is Marina's percent error?

33.3%

13. Jillian calculates that ~~she~~<sup>she</sup> will take 95 minutes to run 7 miles. She runs the distance in 80 minutes. What is Jillian's percent error?

18.75%

14. Sonya expected to get \$60 for her birthday, but she only got \$40. What was the percent error?

50%

15. Jamal needs to purchase a countertop of his kitchen. Jamal measured the countertop as 5 ft. The actual measurement is 4.5 ft. What is Jamal's percent of error?

11.7%