

# ANSWERS

## PERCENTAGE OF ERROR

Read carefully, each problem presents an estimated value and a real one. Use the percentage error formula. Write your answer, include your answer as a percentage to two decimal places..

$$\text{Percent Error} = \frac{\text{Actual Value} - \text{Estimated Value}}{\text{Actual Value}} \times 100\%$$

1) A weather forecast predicted 40 mm of rain, but 35 mm fell.

**Solution:**

$$\text{Percent Error} = \frac{35 - 40}{35} \times 100 = \frac{-5}{35} \times 100 = -14.29 \%$$

2) A grocery store estimated that they would sell 300 bottles of water on a hot day, but they sold 325.

**Solution:**

$$\text{Percent Error} = \frac{325 - 300}{325} \times 100 = \frac{25}{325} \times 100 = 7.69 \%$$

3) A teacher estimated that 25 students would attend the after-school program, but 20 attended.

**Solution:**

$$\text{Percent Error} = \frac{20 - 25}{20} \times 100 = \frac{-5}{20} \times 100 = -25.00 \%$$

4) A park ranger estimated that 150 people would visit the park on Monday, but 145 people visited.

**Solution:**

$$\text{Percent Error} = \frac{145 - 150}{145} \times 100 = \frac{-5}{145} \times 100 = -3.45 \%$$

5) A bakery predicted it would need 200 eggs for the week, but it needed 210.

**Solution:**

$$\text{Percent Error} = \frac{210 - 200}{210} \times 100 = \frac{10}{210} \times 100 = 4.76 \%$$

How Did You Do? 😊 😐 😞