

# 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 forecast estimated 60 mm of rain, but 65 mm of rain fell.

**Solution:**

$$\text{Percent Error: } \frac{65 - 60}{65} \times 100 = \frac{5}{65} \times 100 = 7.69 \%$$

2) A grocery store manager estimated that 500 apples would be sold, but 520 apples were sold.

**Solution:**

$$\text{Percent Error: } \frac{520 - 500}{520} \times 100 = \frac{20}{520} \times 100 = 3.85 \%$$

3) A company predicted it would sell 150 units of a product, but it sold 145 units.

**Solution:**

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

4) A school estimated that 200 students would participate in a sports day, but 190 students participated.

**Solution:**

$$\text{Percent Error: } \frac{190 - 200}{190} \times 100 = \frac{-10}{190} \times 100 = -5.26 \%$$

5) A gardener estimated that a flower bed would produce 80 tulips, but it produced 75 tulips.

**Solution:**

$$\text{Percent Error: } \frac{75 - 80}{75} \times 100 = \frac{-5}{75} \times 100 = -6.67 \%$$

How Did You Do? 😊 😐 😞