

# 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 library expected 50 people to sign up for a new reading program, but 55 people signed up.

**Solution:**

$$\text{Percent Error} = \frac{55 - 50}{55} \times 100 = \frac{5}{55} \times 100 = 9.09 \%$$

- 2) A community center estimated that 40 people would attend the weekend workshop, but only 38 showed up.

**Solution:**

$$\text{Percent Error} = \frac{38 - 40}{38} \times 100 = \frac{-2}{38} \times 100 = -5.26 \%$$

- 3) A swim coach predicted 30 participants for the swim meet, but 32 participated.

**Solution:**

$$\text{Percent Error} = \frac{32 - 30}{32} \times 100 = \frac{2}{32} \times 100 = 6.25 \%$$

- 4) A craft store estimated selling 45 knitting kits in a month, but sold 50.

**Solution:**

$$\text{Percent Error} = \frac{50 - 45}{50} \times 100 = \frac{5}{50} \times 100 = 10.00 \%$$

- 5) A local fair predicted 200 attendees, but 190 attended.

**Solution:**

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

How Did You Do? 😊 😐 😞