

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 teacher estimated 20 students would need extra help, but actually 18 students required it.

Solution:

$$\text{Percent Error: } \frac{18 - 20}{18} \times 100 = \frac{-2}{18} \times 100 = -11.11 \%$$

- 2) A baker predicted selling 50 cupcakes at an event, but she sold 55.

Solution:

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

- 3) A student estimated that his drive to school takes 15 minutes, but it actually takes 17 minutes.

Solution:

$$\text{Percent Error: } \frac{17 - 15}{17} \times 100 = \frac{2}{17} \times 100 = 11.76 \%$$

- 4) A local fair estimated 300 tickets would be sold, but 290 tickets were actually sold.

Solution:

$$\text{Percent Error: } \frac{290 - 300}{290} \times 100 = \frac{-10}{290} \times 100 = -3.45 \%$$

- 5) A librarian estimated that 40 books would be checked out on a particular day, but 38 books were actually checked out.

Solution:

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

How Did You Do? 😊 😐 😞