

Percent Error Worksheet

ABSOLUTE ERROR: Given the exact value, x , of a quantity and an approximate value, a , of the quantity, the *absolute error* is $|a - x|$.

PERCENT ERROR: The *percent error* is the percent the absolute error is of the exact value, $\frac{|a-x|}{|x|} \times 100\%$, where x is the exact value of the quantity and a is an approximate value of the quantity.

Calculate the percent error for Problems 1–3. Leave your final answer in fraction form, if necessary.

1. A real estate agent expected 18 people to show up for an open house, but 25 attended.

2. In science class, Mrs. Moore's students were directed to weigh a 300-gram mass on the balance scale. Tina weighed the object and reported 328 grams.

3. Darwin's coach recorded that he had bowled 250 points out of 300 in a bowling tournament. However, the official scoreboard showed that Darwin actually bowled 225 points out of 300.

4. The veterinarian weighed Oliver's new puppy, Boaz, on a defective scale. He weighed 36 pounds. However, Boaz weighs exactly 34.5 pounds. What is the percent of error in measurement of the defective scale to the nearest tenth?

Go to [onlinemathlearning.com](https://www.onlinemathlearning.com) for more free math resources

Percent Error Worksheet

ABSOLUTE ERROR: Given the exact value, x , of a quantity and an approximate value, a , of the quantity, the *absolute error* is $|a - x|$.

PERCENT ERROR: The *percent error* is the percent the absolute error is of the exact value, $\frac{|a-x|}{|x|} \times 100\%$, where x is the exact value of the quantity and a is an approximate value of the quantity.

Calculate the percent error for Problems 1–3. Leave your final answer in fraction form, if necessary.

1. A real estate agent expected 18 people to show up for an open house, but 25 attended.

$$\frac{|18 - 25|}{|25|} \times 100\% = 28\%$$

2. In science class, Mrs. Moore's students were directed to weigh a 300-gram mass on the balance scale. Tina weighed the object and reported 328 grams.

$$\frac{|328 - 300|}{|300|} \times 100\% = 9\frac{1}{3}\%$$

3. Darwin's coach recorded that he had bowled 250 points out of 300 in a bowling tournament. However, the official scoreboard showed that Darwin actually bowled 225 points out of 300.

$$\frac{|250 - 225|}{|225|} \times 100\% = 11\frac{1}{9}\%$$

4. The veterinarian weighed Oliver's new puppy, Boaz, on a defective scale. He weighed 36 pounds. However, Boaz weighs exactly 34.5 pounds. What is the percent of error in measurement of the defective scale to the nearest tenth?

$$\frac{|36 - 34.5|}{|34.5|} \times 100\% = 4\frac{8}{23}\% \approx 4.3\%$$

Go to onlinemathlearning.com for more free math resources