

## Percent Error Worksheet

1. Use the  $\pi$  key on a scientific or graphing calculator to compute the percent of error of the approximation of pi, 3.14, to the value  $\pi$ . Show your steps, and round your answer to the nearest hundredth of a percent.

2. Connor and Angie helped take attendance during their school's practice fire drill. If the actual count was between 77 and 89, inclusive, what is the most the absolute error could be? What is the most the percent error could be? Round your answer to the nearest tenth of a percent.

3. The odometer in Mr. Washington's car does not work correctly. The odometer recorded 13.2 miles for his last trip to the hardware store, but he knows the distance traveled is 15 miles. What is the percent error? Use a calculator and the percent error formula to help find the answer. Show your steps.

## Percent Error Worksheet

1. Use the  $\pi$  key on a scientific or graphing calculator to compute the percent of error of the approximation of pi, 3.14, to the value  $\pi$ . Show your steps, and round your answer to the nearest hundredth of a percent.

$$\frac{|3.14 - \pi|}{|\pi|} \times 100\% = 0.05\%$$

2. Connor and Angie helped take attendance during their school's practice fire drill. If the actual count was between 77 and 89, inclusive, what is the most the absolute error could be? What is the most the percent error could be? Round your answer to the nearest tenth of a percent.

*The most the absolute error could be is  $|89 - 77| = |12| = 12$ .*

*The percent error will be largest when the exact value is smallest. The most the percent error could be is*

$$\frac{|12|}{|77|} \times 100\% < 15.6\%. \text{ The percent error is less than 15.6\%.}$$

3. The odometer in Mr. Washington's car does not work correctly. The odometer recorded 13.2 miles for his last trip to the hardware store, but he knows the distance traveled is 15 miles. What is the percent error? Use a calculator and the percent error formula to help find the answer. Show your steps.

*15 is the exact value, and 13.2 is the approximate value. Using the percent error formula,  $\frac{|a-x|}{|x|} \times 100\%$ , the percent error is*

$$\frac{|13.2 - 15|}{|15|} \times 100\% = 12\%.$$

*The percent error is equal to 12%.*

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