Bell Ringer

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$$\frac{67}{x} = \frac{12}{100}$$

$$12x = 6700$$

$$x = 558.\overline{3}$$

About 558 total movies were made in 2014.

Would you rather have 5 of something or 5% of something? Explain your reasoning.

Percent of Change Notes

$$\text{Percent of Change} = \frac{\text{Amount of Increase or Decrease}}{\text{Original Amount}}$$

Must convert the decimal answer to a percent; move decimal point two places to the right and add the % symbol.

Must label answer with **increase or decrease.**

To find the amount of increase/decrease, subtract the smaller number from the larger number.

Pay careful attention when selecting the original amount; look for key words like original, first, etc. Consider date and time order too.

Percent Error Notes

Percent Error - a measure of the difference between an estimate, prediction, or measurement compared to the actual value.

$$\text{Percent Error} = \frac{\text{Amount of Error}}{\text{Actual Value}} \times 100$$

The smaller the percent error the more accurate the estimate, prediction, or measurement.

Find the percent of change for each. Round to the nearest tenth and label.

1) High temperature is 48^0F. It drops to 27^0F by 3pm.

$$\%\,chg = \frac{amt\ of\ chg}{original} \qquad \frac{48-27}{48} = \frac{21}{48} = .4375$$

43.8%
decrease

2) A puppy weighed 28 pounds at its first vet visit. Three months later it weighed 46 pounds.

$$\%\,chg = \frac{46-28}{28} = \frac{18}{28} = .6428$$

64.3% ↑

Find the percent of change for each. Round to the nearest tenth and label.

3) School enrollment: In 2005, 1500 students
In 2015, 1860 students

$$\% \text{ change} = \frac{360}{1500} = .24$$

24% ↑

4) Original price $240
New price $189

$$\frac{51}{240} = .2125$$

21.3% ↓

Find the percent error. Round to the nearest tenth.

5) Estimated votes: 3,050; Actual votes: 3,300.

$$\%\ \text{error} = \frac{\text{error amt}}{\text{actual}} \times 100$$

$$\%\ \text{error} = \frac{3300 - 3050}{3300} = \frac{250}{3300} \times 100$$

$$\%\ \text{error} = 7.6\%$$