

Name: _____

Pd: 2nd/4th

Date: 12/04/17

M7

CH 2.5 - Percent of Change (Page 143)

ESSENTIAL QUESTION:

HOW can percent help you understand situations involving money?

Success Criteria:

1. I can find percent increase or decrease.
2. I can find percent error.

SMPs:

1. Persevere with Problems
3. Construct Viable Arguments
4. Model with Mathematics
5. Use Math Tools Appropriately
6. Attend to Precision

CCSS:

- 7.RP.3
- 7.EE.3

Vocabulary:

Percent of Change
Percent of Increase
Percent of Decrease
Percent Error

PERCENT of CHANGE

WORDS: A percent of change is a ratio that compares the change in the quantity to the original amount.

EQUATION: percent of change = $\frac{\text{amount of change (either increase or decrease)}}{\text{original amount}}$

percent of change = $\frac{\text{new} - \text{old}}{\text{original amount}} \times 100$

Remember to change the decimal back to a percent by moving decimal point 2 places to the right or dividing by 100.

EXAMPLES (1 and 2 in book)

1. Find the percent of change from 10 yards to 13 yards.
2. The price of a radio was \$20. It is on sale for \$15. What is the percent of change in the price of the radio?

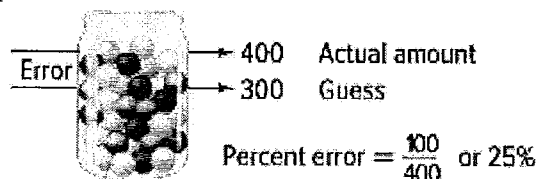
PERCENT ERROR

WORDS: The percent error is a ratio that compares the inaccuracy of an estimate, or amount of error, to the actual amount.

EQUATION:
$$\text{percent error} = \frac{\text{amount of error}}{\text{actual amount}} \times 100$$

Finding the percent error is similar to finding the percent of change. Instead of finding the amount of increase or decrease, you will find the amount an estimate is greater or less than the actual amount.

Suppose you guess there are 300 gum balls in a jar, but there are actually 400.



EXAMPLES (3 in book)

3. Find the percent of error if the estimate is \$230 and the actual amount is \$245. Round to the nearest whole percent.

4. Jessie estimates the weight of her cat to be 10 pounds. The actual weight of the cat is 13.75 pounds. Find the percent of error.

5. Each week, Mr. Jones goes to the grocery store. Mr. Jones estimates that he will spend \$120 when he goes to the grocery store this week. He actually spends \$94. What is the percent error to the nearest whole percent?

6. Last school year the enrollment of Genoa Middle School was 465 students. This year the enrollment is 525? What is the percent of change? Round to the nearest whole percent if necessary.

