

Percent of Change, GPE, & % GPE

Percent of change: is a ratio which $= \frac{\text{Amount of Change}}{\text{Original Amount}}$ Usually it is written as a percent.

NOTE: When a value **INCREASES** from its original amount it is the percent of increase.
When a value **DECREASES** from its original amount it is the percent of decrease.

Example 1: The price of a sweater went from \$29.99 to \$24.99. Find the percent of change to the nearest tenth of a percent. Use an \uparrow or \downarrow to tell if it was an increase or a decrease.

$$= \frac{\text{Amount of Change}}{\text{Original Amount}} = \frac{29.99 - 24.99}{29.99} = \frac{\quad}{29.99} = \quad \approx$$

Example 2: The number of rabbits in a particular area was 261. After 1 year, there were 16,384 rabbits. Find the percent of change to the nearest tenth of a percent. Use an \uparrow or \downarrow to tell if it was an increase or a decrease.

$$= \frac{16,384 - 261}{261} = \frac{\quad}{261} = \quad \approx$$

Example 3: Identifying the Greatest Possible Error (GPE) is one half $\left(\frac{1}{2}\right)$ of that measuring unit.

Identify the GPE of each of the following:

.1 g

9 cm

11.34 in

5.101 mi

Example 4: Identifying the percent error $= \frac{\text{Greatest Possible Error}}{\text{Measurement}}$

To the nearest tenth of a percent, identify the percent error in the measurement of 12.1 cm

You have to first identify the GPE of 12.1 cm which is =

$$\text{Next} = \frac{\text{GPE}}{\text{Measurement}} = \frac{\quad}{\quad} = \quad \approx$$

Percent Error Notes

Formula for Percent Error=

Example: Identify the Percent Error of 42.3cm to the nearest tenth of a percent.

1. 4.007 oz

2. 15.6 in

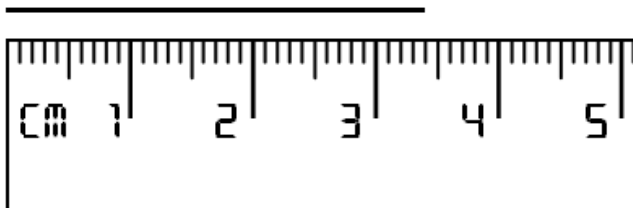
3. 23 cm

4. 6.57lbs

5. 13.4 ft

6. 13.445cm

7. Identify the Percent Error of the line.



8. Identify the Percent Error of the bolt.

