

6.5: % of Change / Difference

Ex. Q:

How can we calculate the % of Change between 2 numbers?

% of Change

original # - new #

original #

(100)

(Absolute Value)  
Always POSITIVE !!

Change  
1st #

(100)

Ex. 1:

% of Change between rushing yards & Pows. <sup>Steps</sup>

2019: 1,500 yards  
2020: 2,000 yards

33 1/3% increase  
in total yards  
rushing.

$$\frac{1,500 - 2,000}{1,500} (100) =$$

$$\frac{500}{1500} (100) = .33\bar{3} (100) = 33.3\%$$

$$\frac{5}{15} \div \frac{5}{5} = \frac{1}{3} = 33\frac{1}{3}\%$$

Ex. 2:

Battery Life

% of Change

1 New Phone: 16 hrs

2 Old Phone: 2 hrs

$$\frac{16 - 2}{16} (100) \rightarrow \frac{14}{16} (100) \rightarrow$$

$$\frac{87.5}{16} (100) = 87.5\%$$

Ex. 3:

Given:

The original #

% of Change

15 mpg increased by 60%

2 steps

1 Find 60% of 15  $\rightarrow x = .6(15) \rightarrow$  <sup>increase</sup> 9 of 1

2 Add 9 to 15 to get new mpg <sup>24 mpg</sup>



Ex 4: % of Error

Measure of your wrongness

Prediction: 20 Takis

Actual # 4 Takis

Prediction - Actual

Actual #

More Takis

$$\frac{20-4}{4} (100) = \frac{16}{4} (100) \rightarrow 4(100) \rightarrow 400\%$$