1. The ratings of a TV show in 2012 was 8.4. The ratings in 2013 were 8.25. What was the percent change and state if it was an increase or a decrease.

$$\frac{8.25 - 8.4}{8.4} = \frac{\%}{100} \rightarrow 1.79\% \, dec$$

2. After working out for a few months Earvin's vertical jump went from 28" to 31". What was the percent change and state if it was an increase or a decrease.

$$\frac{3}{28} = \frac{\%}{100} = 10.7\% \, Inc$$

3. The price of a TV on Dec 1 was $450.
On Dec 8, the price was lowered 20%.
On Dec 15, the price was raised 20% from the Dec 8 price.

a. Was the price on Dec 15 the same as it was on Dec 1? NO

Dec 8 $(.20)(450) = 90 \rightarrow 450-90 = 360$

Dec 15 $(.20)(360) = 72 \rightarrow 360 + 72 = \boxed{432}$

b. If not, what was the percent change in the price from the Dec 1 price to the Dec 15 price and was it an increase or a decrease?

$$\frac{432 - 450}{450} \times 100 \qquad 4\% \, decrease$$