4.4-> PERCENT OF CHANGE

Percent of Change: The ratio $\frac{\text{amount of change}}{\text{original}}$ expressed as a percent; Can be expressed as an increase or decrease.

$$Percent\ of\ Change = \frac{Change\ (-)}{Original} \cdot 100$$

Percent of Increase: When a value increases from its original amount.

Percent of Decrease: When a value decreases from its original amount.

Examples- Finding the Percent of Change:

1. The price of a skirt decreased from \$32.95 to \$28.95. Find the percent of decrease.

$$\frac{32.95-28.95}{32.95} \cdot 100 = \frac{4}{32.95} \cdot 100 = .012 \times 100 =$$

12% ↓

2. Find the percent of change if the price of a CD increases from \$12.99 to \$13.99.

$$\frac{13.99-12.99}{12.99} \times 100 = 7.7 =$$

8% ↑

3. Find the percent of change if the CD is on sale and its price decreases from \$13.99 to \$12.99. Round to the nearest %.

$$\frac{13.99-12.99}{13.99} \times 100\% = \boxed{7\% \downarrow}$$

4. Find each Percent of Change. Describe each as a % of Increase or % of Decrease. Round to the nearest %.

a. \$4.50 to \$5.00

$$\frac{5-4.5}{4.5} \times 100 = \boxed{11\% \uparrow}$$

b. 8 lbs. to 5 lbs.

$$\frac{8-5}{8} \times 100 = \boxed{38\% \downarrow}$$

c. 56 inches to 65 inches

$$\frac{65-56}{56} \times 100 = \frac{9}{56} \times 100 = \boxed{16\% \uparrow}$$

d. 18 oz. to 12 oz.

$$\frac{18-12}{18} \times 100 = \boxed{33\% \downarrow}$$