

Discount: the amount (or %) that is taken OFF of a price.

Sale Price: the price you pay once the discount is taken off.

(Original Price minus Discount)

Example:

The regular price of a cell phone is

\$199.99. This week it is 25% off. $\frac{\text{Part}}{\text{Whole}} = \frac{\%}{100}$

total \uparrow What is the amount of discount and the sale price?

$$\frac{X}{199.99} = \frac{25}{100} \quad \swarrow \text{Cross multiply}$$

Amount of Discount = X = \$50

Sale Price = \$149.99

$$(199.99 - 50)$$

Example:

An iPod that regularly sells for \$210 is on sale for 30% off. What is the iPod selling for now? Find the amount of discount and the sale price.

$$\frac{X}{210} = \frac{30}{100}$$

Amount of Discount = $X = \$63$

Sale Price = $\frac{\$147}{(210 - 63)}$

Markup: the amount a price is increased.
(stores buy an item and mark them up before selling to you)

Retail Price: the price that you pay in a store after it is marked up.
("whole sale price" plus amount of mark up)

Example:

A jeweler buys a ring from an artisan for \$85. He sells the ring in his store for a 135% markup. Find the amount of markup and the retail price in his store.

$$\frac{X}{85} = \frac{135}{100}$$

$$\text{Amount of markup} = X = \$114.75$$

$$\text{Retail price} = \frac{\$199.75}{(85 + 114.75)}$$