# Markup and Discount

### Vocabulary

_____Discount_____ - the dollar amount (or %) that is taken off a price.

_Discounted Price_____ - the price you pay after the discount is taken off. (original price - discount)

Percent of change

$$\frac{Amt\ of\ change}{original} = \frac{\%}{100}$$

### Example 1

The regular price of a cell phone is $160. This week it is on sale for 25% off. What is the amount of discount and the sale price?

$$\frac{x}{160} \times \frac{25}{100}$$

$$\frac{100x}{100} = \frac{4000}{100}$$

$X = 40$   discount $= \$40$

$$\begin{array}{r} 160 \\ -\ 40 \\ \hline \$120 \end{array}$$

### Example 2

Quick Service Gas Station charges $45 for a tune-up. This week, it's on sale for 16% off of the regular price. What is the sale price?

$$\begin{array}{r} 45.00 \\ -\ 7.20 \\ \hline \$37.80 \end{array}$$

$$\frac{x}{45} \times \frac{16}{100}$$

$$\frac{100x}{100} = \frac{720}{100}$$

$$x = \$7.20$$

### Example 3

An outdoor supply store has its regularly priced $160 sleep bags on sale for $120. What is the discount rate?

$$\frac{40}{160} \times \frac{x}{100}$$

$$\frac{160x}{160} = \frac{4000}{160}$$

$$X = 25\%$$

### Example 4

A discount clothing store is selling a $72 sport jacket for $24 off the regular price. What is the discount rate?

$$x = 33\tfrac{1}{3}\% \quad \frac{24}{72} = \frac{x}{100}$$

$$\frac{72x}{72} = \frac{2400}{72}$$

### Vocabulary

_____ - the dollar amount (or %) a price is increased. (stores buy an item and mark it up before selling it to you)

_____ _____ - the price you pay in store after the markup. (wholesale price plus amount of markup)

### Example 5

A jewler buys a ring from an artisan for $85. He sells the ring in his store with a 135% markup. Find the selling price of the ring.

### Example 6

An electronics store bought a TV for $320. The TV is markup up 60% to sell in the store. What is the selling price of the TV?

### Example 7

The cost of a baseball hat is $12. The sporting goods store sells it for $18. What is the markup rate?

### Example 8

A clothing store sells a $14 t-shirt for $35. What is the markup rate?

### Example 9

Tomatoes that regularly sell for $0.85 per pound are on sale for 20% off the regular price. What is the sale price of the tomatoes?

### Example 10

A shoe store sells $17 sandals with a markup of 31%. What is the retail price of the shoes?

Tomatoes that regularly sell for $0.85 per pound are on sale for 20% off the regular price. What is the sale price of the tomatoes?