Discounts

Other than figuring sales tax, the area of life in which you will probably most often need to use percentages is in calculating discounts.

A laptop that costs $600 is 20% off. What is the sale price?

Method 1. We calculate 20% of $600. That is the discounted amount in *dollars*.
Then we subtract that from the original price, $600.

20% of $600 is $120. And $600 − $120 = $480. So, the sale price is $480.

Method 2. Since 20% of the price has been removed, 80% of the price is *left*.
By calculating 80% of the original price, you will get the new discounted price: 0.8 × $600 = $480

Two methods for calculating the discounted price:

1. Calculate the discount amount as a percentage of the original price. Then subtract.
2. Find what percentage of the price is left. Then calculate that percentage of the normal price.

1. All of these items are on sale. Calculate the discount in dollars and the resulting sale price.

a. Price: $90
20% off

Discount amount: $ 18

Sale price: $_____

b. Price: $5
40% off

Discount amount: $_____

Sale price: $_____

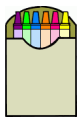
c. Price: $15
30% off

Discount amount: $_____

Sale price: $_____

2. A swimsuit that cost $25 was on sale for 20% off.
Monica calculated the discounted price this way: $25 − $20 = $5.
What went wrong? Find the correct discounted price.

3. All the items are on sale. Find the discounted price.

a. Price: $1.20
25% off 

Discount amount: $_____

Discounted price: $_____

b. Price: $18
25% off

Discount amount: $_____

Discounted price: $_____

c. Price: $150
30% off

Discount amount: $_____

Discounted price: $_____

d. Price: $20
40% off

Discount amount: $_____

Discounted price: $_____

e. Price: $2.20
10% off

Discount amount: $_____

Discounted price: $_____

f. Price: $1.30
50% off

Discount amount: $_____

Discounted price: $_____

Sample worksheet from
www.mathmammoth.com