Vocabulary

Discount (markdown) -

It is the amount by which the regular price of an item is reduced. The sale price is the regular price minus the discount.
1. A DVD normally costs $22. This week it is on sale for 25% off the original price. What is the sale price of the DVD?

**Method 1** Subtract the discount from the regular price.

a) Write the % as a decimal

\[ 25\% = 0.25 \]

b) Multiply the decimal by the original price

\[ 0.25 \cdot 22 = 5.50 \]

c) Subtract the discount from the original price

\[ 22.00 - 5.50 = \$16.50 \]
1. A DVD normally costs $22. This week it is on sale for 25% off the original price. What is the sale price of the DVD?

**Method 2** Subtract the percent of discount from 100%.

a) Subtract the % from 100%

\[ 100\% - 25\% = 75\% \]

b) Write the new % as a decimal

\[ 75\% = 0.75 \]

c) Multiply the decimal and the original price

\[ 0.75 \cdot 22 = \$16.50 \]
Got It? Do this problem to find out.

A shirt is regularly priced at $42. It is on sale for 15% off of the regular price. What is the sale price of the shirt?

Method 1 Subtract the discount from the regular price.

a) Write the % as a decimal  
15% = 0.15

b) Multiply the decimal by the original price  
0.15 \times 42 = 6.30

c) Subtract the discount from the original price  
42.00 - 6.30 = \$35.70
A box of golf balls sells for $20. This week it is on sale for 30% off the original price. What is the sale price of the set?

Method 2  Subtract the percent of discount from 100%.

a) Subtract the % from 100%  
\[ 100\% - 30\% = 70\% \]

b) Write the new % as a decimal  
\[ 70\% = 0.70 \]

c) Multiply the decimal and the original price  
\[ 0.7 \cdot 20 = \$14.00 \]
A jacket is on sale for 15% off its regular price of $49.99. What is the sale price of the jacket?

**Method 1**

\[ 15\% = 0.15 \]
\[ 0.15 \cdot 49.99 = 7.498 \]
\[ 49.99 - 7.50 = \boxed{42.49} \]

**Method 2**

\[ 100\% - 15\% = 85\% \]
\[ 85\% = 0.85 \]
\[ 0.85 \cdot 49.99 = \boxed{42.49} \]
2. A boogie board that has a regular price of $69 is on sale at a 35% discount. What is the sale price with 7% tax?

**Step 1** Find the amount of the discount.

\[ 35\% = 0.35 \]

\[ 0.35 \times 69 = 24.15 \]

**Step 2** Subtract the discount from the regular price.

\[ 69.00 - 24.15 = $44.85 \]

**Step 3** The percent of tax is applied after the discount is taken.

\[ 7\% = 0.07 \]

\[ 0.07 \times 44.85 = 3.14 \]

\[ 44.85 + 3.14 = $47.99 \]
A CD that has a regular price of $15.50 is on sale at a 25% discount. What is the sale price with 6.5% tax?

**Step 1** Find the amount of the discount.

\[25\% = 0.25\]

\[0.25 \times 15.50 = 3.875\]

**Step 2** Subtract the discount from the regular price.

\[15.50 - 3.88 = 11.62\]

**Step 3** The percent of tax is applied after the discount is taken.

\[6.5\% = 0.065\]

\[0.065 \times 11.62 = 0.76\]

\[0.76 + 11.62 = $12.38\]
Sandra is buying decorations for a party. She wants to buy a set of balloons that originally cost $39, but are currently on sale for 25% off. What is the sale price of the balloons including a 5.75% tax?

**Step 1**
25% = 0.25  
0.25 \cdot 39 = 9.75

**Step 2**
39.00 - 9.75 = 29.25

**Step 3**
5.75% = 0.0575  
0.0575 \cdot 29.25 = 1.681  
29.25 + 1.68 = \$30.93
3. A cell phone is on sale for 30% off. If the sale price is $239.89, what is the original price?

**Step 1** Subtract the % from 100%

\[100\% - 30\% = 70\%\]

**Step 2** Write the new % as a decimal

\[70\% = 0.7\]

**Step 3** Divide the sale price by the decimal

\[239.89 \div 0.7 = \$342.70\]
A video game is on sale for $42.49. If the sale price represents a 15% discount, what is the original amount?

**Step 1** Subtract the % from 100%

\[
100\% - 15\% = 85\%
\]

**Step 2** Write the new % as a decimal

\[
85\% = 0.85
\]

**Step 3** Divide the sale price by the decimal

\[
42.49 \div 0.85 = \$49.99
\]
Rosa buys a tablet that is on sale for 60% off. If the sale price is $79.98, what is the original price?

**Step 1**

\[ 100\% - 60\% = 40\% \]

**Step 2**

\[ 40\% = 0.4 \]

**Step 3**

\[ 79.98 \div 0.4 = \$199.95 \]
4. Clothes Are Us and Ratcliffe’s are having sales. At Clothes Are Us, a pair of sneakers is on sale for 40% off the regular price of $50. At Ratcliffe’s, the same brand of sneakers is discounted by 30% off of the regular price of $40. Which store has the better sale price? Explain.

<table>
<thead>
<tr>
<th>Clothes Are Us</th>
<th>Ratcliffe’s</th>
</tr>
</thead>
<tbody>
<tr>
<td>40% = 0.4</td>
<td>100% - 30% = 70%</td>
</tr>
<tr>
<td>0.4 \cdot 50 = 20</td>
<td>70% = 0.7</td>
</tr>
<tr>
<td>50 - 20 = $30</td>
<td>0.7 \cdot 40 = $28</td>
</tr>
</tbody>
</table>

Ratcliffe’s sale price is better because it costs $2 less than Clothes Are Us.
Mary and Roberto bought identical backpacks at different stores. Mary’s backpack originally cost $65 and was discounted 25%. Roberto’s backpack originally cost $75 and was on sale for 30% off of the original price. Which backpack was the better buy? Explain.

**Mary**

\[
100\% - 25\% = 75\%
\]

\[
75\% = 0.75
\]

\[
0.75 \cdot 65 = $48.75
\]

**Roberto**

\[
30\% = 0.3
\]

\[
0.3 \cdot 75 = 22.50
\]

\[
75.00 - 22.50 = $52.50
\]

Mary got a better deal because she paid $3.75 less than Roberto.
Homework:

Pg. 163-166
#1-14 (all) and #21-27