

6.5 Discount and Markup (Part 2)

You can find the sale price of an item in two ways.
For example: the original price of a guitar is \$256 at 25% discount.

METHOD 1

Step 1: Find the amount of discount.

$$0.25 \cdot \$256 = \$64$$

Step 2: Subtract to find the sale price.

$$\$256 - \$64 = \$192$$

METHOD 2

Step 1: Subtract % off from 100% to find the % you pay.

$$100\% - 25\% = 75\%$$

Step 2: Multiply to find the sale price.

$$0.75 \cdot \$256 = \$192$$

Example: Find the sale price using either method.
(The price given is the original price)

\$35 lamp at 20% off

Method # 1:

$$\begin{array}{r} 35 \\ \times .2 \\ \hline 7.0 \end{array} \quad \begin{array}{r} 35 \\ - 7 \\ \hline 28 \end{array}$$

28

Method # 2:

$$100 - 20 = 80\%$$

$$\begin{array}{r} 35 \\ \times 0.8 \\ \hline 28.0 \end{array}$$

28

Example: Find the sale price using either method.

(The price given is the original price)

\$260 watch at 45% off

Method #2: $100 - 45 = \underline{55\%}$
0.55

$$\begin{array}{r} ^3 \\ 260 \\ \times 0.55 \\ \hline 1300 \\ +13000 \\ \hline 143.00 \end{array}$$

$$\boxed{\$143}$$

Example: Find the sale price using either method.

(The price given is the original price)

\$400 motorcycle at 35% off

Method #2: $100 - 35 = \underline{65\%}$
0.65

$$\begin{array}{r} 400 \\ \times 0.65 \\ \hline 2000 \\ +24000 \\ \hline 260.00 \end{array}$$

$$\boxed{\$260}$$

Example: Find the sale price using either method.

(The price given is the original price)

\$764 vacation trip at $\overset{0.15}{\underbrace{15\%}}$ savings

Method #1:

$$\begin{array}{r} \overset{3}{7}\overset{2}{6}4 \\ \times 0.15 \\ \hline 3820 \\ + 7640 \\ \hline 114.60 \end{array}$$

$$\begin{array}{r} \overset{513}{7}\overset{10}{6}4.00 \\ - 114.60 \\ \hline \boxed{649.40} \end{array}$$

Example: A magazine subscription has a cover price of \$35. It is on sale for 67% off the original price. Find the sale price of the magazine subscription.

Method #2: $100 - 67 = \overset{0.33}{\underbrace{33\%}}$

$$\begin{array}{r} \overset{1}{3}5 \\ \times 0.33 \\ \hline 105 \\ + 1050 \\ \hline 11.55 \end{array}$$

$$\boxed{11.55}$$