6.5 Part 3: Discount & Sales Tax

You can solve more advanced problems using discount and sales tax.

First, find the <u>discount</u>.

Second, use that number to find the <u>Sales tax</u>.

Example 1

Heath purchases a video game that originally costs $60. He receives a 10% discount and has to pay a 6% sales tax. What is the total price?

$$100 - 10 = 90\%$$
$$0.9$$

$$\begin{array}{r} 60 \\ \times\, 0.9 \\ \hline 54 \end{array}$$

$$54 \cdot 0.06 = 3.24$$

$$\begin{array}{r} 54.00 \\ +\ \ 3.24 \\ \hline \$57.24 \end{array}$$

Example 2

Cody is buying a ring that had an original price of $295 but is advertised at 30% off. Sales tax of 8.25% is applied to the discounted price. How much will Cody pay for the ring?

$$100 - 30 = 70\%$$
$$0.70$$

$$\begin{array}{r} 295 \\ \times\, 0.70 \\ \hline 206.5 \end{array}$$

$$206.5 \times 0.0825$$
$$= 17.03625$$

$$\begin{array}{r} 206.50000 \\ +\quad 17.03625 \\ \hline 223.53625 \end{array}$$

$$\boxed{\$223.54}$$

Example 3

Allie is purchasing a new laptop that originally costs $599. She is getting a 15% student discount and has to pay a 7% sales tax. What is the total price?

$$100 - 15 = 85\%$$
$$0.85$$

$$\begin{array}{r} 599 \\ \times\, 0.85 \\ \hline 509.15 \end{array}$$

$$509.15 \times 0.07$$
$$= 35.6405$$

$$\begin{array}{r} 509.15 \\ +\quad 35.6405 \\ \hline 544.7905 \end{array}$$

$$\boxed{\$544.79}$$

Example 4

Joni bought a television that was discounted by 33% during a sale. The regular price was $599.
She paid sales tax of 7.75%.
What is the total price?

$100 - 33 = 67\%$

0.67

$$599 \times 0.67 = 401.33$$

$401.33 \times 0.0775 = 31.103075$

$$401.33 + 31.103075 = 432.433075$$

$\$432.43$

Example 5

Danisha picks up a takeout meal at a local restaurant that is discounted 25%. The price was $24.60 without the discount, and sales tax of 4.5% is added. How much does Danisha pay?

$100 - 25 = 75\%$

0.75

$$24.60 \times 0.75 = 18.45$$

$18.45 \times 0.045 = 0.83025$

$$18.45 + 0.83025 = 19.28025$$

$\$19.28$