

Lesson 2

Percent Increase or Decrease

1. Walmart sells a DVD player for \$59.49. Calculate the GST to be paid on the DVD, and then determine the total cost of the DVD player.

Step 1: multiply the original price of the DVD player by the rate of GST.

$$\begin{aligned}\text{GST amount} &= \$59.49 \times 5\% \\ &= \$59.49 \times 0.05 \\ &= \$2.97\end{aligned}$$

Step 2: Add the GST to the original price.

$$\begin{aligned}\text{Total cost} &= \$59.49 + \$2.97 \\ &= \$62.46\end{aligned}$$

The DVD player will cost \$62.46.

2. Alycia needs a new pair of glasses. The frames are on sale for 30% off. The original price of the frames is \$229.00. What is the sale price of the frames, before GST?

Step 1: multiply the original price by the percent markdown.

$$\begin{aligned}\text{discount} &= \$229.00 \times 30\% \\ &= \$229.00 \times 0.30 \\ &= \$68.70\end{aligned}$$

Step 2: Subtract the discount from the original price.

$$\begin{aligned}\text{sale price} &= \$229.00 - \$68.70 \\ &= \$160.30.\end{aligned}$$

The sale price of the frames, before GST, is \$160.30.

3. Jim owns a leather shop. He buys leather jackets from the manufacturer for \$250 each. Then, he marks the jackets up 75% so he can sell them in his store for a profit. What is the price of the jackets in Jim's store?

Step 1: multiply the manufacturer's price by the percent markup.

$$\begin{aligned}\text{markup amount} &= \$250.00 \times 75\% \\ &= \$250.00 \times 0.75 \\ &= \$187.50\end{aligned}$$

Step 2: Add the markup amount to the original manufacturer's price.

$$\begin{aligned}\text{store price} &= \$250.00 + \$187.50 \\ &= \$437.50\end{aligned}$$

The price of the jackets in Jim's store is \$437.50.