

Sofia Bought A Tablet That Was 15 % Off The Regular Price Of \$775.If A 6% Sales Tax Was Added To The

Sofia Bought A Tablet That Was 15 % Off The Regular Price Of \$775.If A 6% Sales Tax Was Added To The total, understanding how to calculate the final price involves a series of straightforward mathematical steps. Whether you're shopping for electronics or other items, knowing how discounts and sales tax work together can help you make informed purchasing decisions and budget effectively. In this article, we will explore the process of calculating the discounted price, applying sales tax, and understanding the importance of these calculations in everyday shopping.

Understanding the Original Price and Discount

The Regular Price of the Tablet

The original or regular price of the tablet is \$775. This is the price before any discounts or taxes are applied, representing the retail price set by the seller.

Calculating the Discount Amount

Sofia received a 15% discount on the original price. To find the amount she saved, we can use the formula:

$$\text{Discount Amount} = \text{Original Price} \times \frac{\text{Discount Percentage}}{100}$$

Substituting the known values:

$$\text{Discount Amount} = 775 \times \frac{15}{100} = 775 \times 0.15 = 116.25$$

This means Sofia saved \$116.25 on the tablet after applying the discount.

Finding the Discounted Price

Subtract the discount from the original price to find the price before tax:

$$\text{Discounted Price} = \text{Original Price} - \text{Discount Amount}$$

$$\text{Discounted Price} = 775 - 116.25 = 658.75$$

So, Sofia's price after the discount but before tax is \$658.75.

Applying Sales Tax to the Discounted Price

Understanding Sales Tax

Sales tax is a percentage added to the purchase price, which varies depending on the location. In Sofia's case, a 6% sales tax is added to the discounted price. This tax goes to the government and is calculated based on the price after discounts.

Calculating the Sales Tax Amount

To find how much tax Sofia has to pay, use the formula:

$$\text{Sales Tax} = \text{Discounted Price} \times \frac{\text{Tax Percentage}}{100}$$

Substituting the values:

$$\text{Sales Tax} = 658.75 \times \frac{6}{100} = 658.75 \times 0.06 = 39.525$$

For practical purposes, this amount is often rounded to two decimal places, resulting in:

$$\text{Sales Tax} \approx \$39.53$$

Calculating the Final Price Including Tax

Add the sales tax to the discounted price to determine the total amount Sofia paid:

$$\text{Final Price} = \text{Discounted Price} + \text{Sales Tax}$$

$$\text{Final Price} = 658.75 + 39.53 = 698.28$$

Therefore, Sofia paid approximately \$698.28 for her tablet after discounts and taxes.

Summary of the Calculation Process

Here's a quick recap of how to arrive at the final price:

1. Determine the discount amount: $(\$775 \times 15\% = \$116.25)$
2. Subtract the discount from the original price: $(\$775 - \$116.25 = \$658.75)$
3. Calculate the sales tax: $(\$658.75 \times 6\% = \$39.53)$
4. Add the sales tax to the discounted price: $(\$658.75 + \$39.53 = \$698.28)$

This step-by-step process ensures an accurate calculation of the final amount paid.

The Importance of Accurate Pricing Calculations

Budgeting and Financial Planning

Understanding how discounts and taxes influence the final purchase price helps consumers budget appropriately. When shopping for big-ticket items like tablets, knowing the final cost prevents surprises at checkout.

Comparing Offers and Discounts

Being able to calculate the actual savings allows shoppers to compare different deals effectively. For example, knowing that a 15% discount on a \$775 item results in a savings of \$116.25 helps in evaluating whether a deal is worthwhile.

Business and Retail Insights

Retailers use these calculations to set competitive prices and promotional discounts. Consumers benefit from understanding these processes to make smarter purchasing choices.

Additional Tips for Consumers

- Always verify the tax rate applicable in your location, as it can vary significantly between regions.
- When calculating discounts, consider using decimal approximations for easier mental math or financial software for precision.
- Remember that some items may be exempt from sales tax depending on local

laws, so always check local regulations.

- Keep track of promotional discounts and their impact on the final price to maximize your savings.

Conclusion

Calculating the final price of a product after discounts and sales tax is an essential skill for consumers. In Sofia's case, starting with a 15% discount on a \$775 tablet and adding 6% sales tax results in a total payment of approximately \$698.28. Understanding these steps empowers shoppers to make informed choices, manage their budgets, and recognize the true value of discounts and taxes in their purchases. Whether shopping online or in-store, mastering these calculations ensures transparency and confidence in your financial decisions.

Frequently Asked Questions

How much did Sofia pay for the tablet after the 15% discount?

The discounted price is \$775 minus 15%, which is \$116.25. So, she paid $\$775 - \$116.25 = \$658.75$.

What is the amount of sales tax Sofia paid on the discounted tablet?

The sales tax is 6% of the discounted price. So, 6% of \$658.75 is \$39.53.

What was the total amount Sofia paid for the tablet including sales tax?

Total cost = discounted price + sales tax = $\$658.75 + \$39.53 = \$698.28$.

How do you calculate the final price of a discounted item with sales tax?

First, find the discounted price, then calculate 6% sales tax on that amount, and add the tax to the discounted price to find the total cost.

If Sofia wanted to save at least \$100 after discounts and taxes, did her purchase meet that goal?

Yes. She paid a total of \$698.28, which is approximately \$76.72 less than the original price of \$775, meeting her savings goal after discounts and taxes.

Additional Resources

Sofia Bought A Tablet That Was 15% Off The Regular Price Of \$775. If A 6% Sales Tax Was Added To The Purchase, What Was The Final Price?

In today's tech-driven world, purchasing a new gadget often involves understanding discounts and taxes that influence the final cost. Recently, Sofia decided to buy a tablet she found appealing, but it came with a promotional discount. For consumers trying to navigate similar deals, it's essential to understand how discounts and sales taxes work together to determine the total amount payable. This article will analyze Sofia's purchase, breaking down the calculation of the discounted price, the addition of sales tax, and the overall cost she paid, all presented in a clear and comprehensive manner.

Understanding the Original Price and Discount

Before diving into the specifics of Sofia's transaction, it's crucial to comprehend the baseline figures:

- Original Price of the Tablet: \$775
- Discount Offered: 15%

The first step is to determine the amount of discount Sofia received and the price she paid before taxes.

Calculating the Discounted Price

A 15% discount on a \$775 tablet reduces the original price by a specific dollar amount. The calculation involves multiplying the original price by the discount percentage expressed as a decimal:

```
\[
\text{Discount} = \$775 \times 0.15
\]
```

Performing this calculation:

```
\[
\$775 \times 0.15 = \$116.25
\]
```

This means Sofia saved \$116.25 on the purchase.

Next, subtract the discount from the original price to get the discounted price:

```
\[
\text{Price Before Tax} = \$775 - \$116.25 = \$658.75
\]
```

Thus, after the discount, Sofia's tablet cost \$658.75 before taxes.

Incorporating the Sales Tax

In many regions, retail purchases are subject to sales tax, which is calculated as a percentage of the purchase price. Sofia's area imposes a 6% sales tax. To determine the amount of sales tax added, multiply the discounted price by the tax rate:

$$\text{Sales Tax} = \$658.75 \times 0.06$$

Calculating this:

$$\$658.75 \times 0.06 = \$39.525$$

Since currency is typically rounded to two decimal places, the sales tax is approximately \$39.53.

Computing the Total Final Price

Adding the sales tax to the discounted price yields the total amount Sofia paid:

$$\text{Final Price} = \$658.75 + \$39.53 = \$698.28$$

Therefore, Sofia's final cost for the tablet, including taxes, was \$698.28.

Summarizing the Calculation Steps

To clarify the process for consumers or those interested in similar transactions, here's a step-by-step breakdown:

1. Determine the discount amount:
 - Multiply original price by discount percentage.
 - Example: $\$775 \times 0.15 = \116.25
2. Calculate the discounted price:
 - Subtract discount amount from original price.
 - Example: $\$775 - \$116.25 = \$658.75$
3. Compute the sales tax:
 - Multiply discounted price by sales tax rate.
 - Example: $\$658.75 \times 0.06 = \39.53
4. Find the total cost:
 - Add sales tax to discounted price.
 - Example: $\$658.75 + \$39.53 = \$698.28$

This straightforward approach can be applied to various purchase scenarios involving discounts and taxes.

Practical Implications for Consumers

Understanding how discounts and taxes combine is essential for budget planning and making informed buying decisions. Here are some key takeaways for consumers:

- Always calculate the discounted price first before adding taxes, as taxes are typically based on the discounted amount.
- Be aware of the sales tax rate specific to your region, as it varies across different areas and can significantly affect the final price.
- Use rounding appropriately to ensure accurate billing, especially when dealing with currency.

By mastering these calculations, consumers can better anticipate costs and avoid surprises at checkout.

Broader Context: Why These Calculations Matter

While Sofia's example is straightforward, it exemplifies a common scenario faced by shoppers worldwide. Whether purchasing electronics, apparel, or furniture, understanding the interplay of discounts and taxes can lead to smarter shopping strategies. For instance:

- Timing purchases during sales events can maximize savings, but knowing how discounts apply helps evaluate true value.
- Estimating total costs beforehand can prevent budget overruns.
- Comparing deals becomes easier when understanding how different discounts and tax rates influence final prices.

Moreover, businesses and retailers often use these calculations to set pricing strategies, ensuring competitiveness while maintaining profit margins.

Final Thoughts

Sofia's decision to buy a tablet at a 15% discount illustrates a common shopping scenario that involves multiple steps to determine the final amount owed. By carefully calculating the discount and adding the applicable sales tax, she paid a total of approximately \$698.28 for her new device.

This example underscores the importance of understanding basic financial principles related to discounts and taxes. Equipped with these insights, consumers can make smarter purchasing decisions, better plan their expenses, and confidently navigate retail transactions. Whether shopping online or in-store, knowing how to calculate the final price empowers buyers to get the best value for their money.

In conclusion, always remember to:

- Calculate discounts first
- Apply relevant sales tax on the discounted price
- Round appropriately for currency

By doing so, shoppers like Sofia can ensure transparency and accuracy in their transactions, leading to more satisfying purchasing experiences.

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