Jaylo Bought A Television Priced At $349. She Received A 20% Discount And Paid A 7% Sales Tax. What Is

Jaylo Bought A Television Priced At $349. She Received A 20% Discount And Paid A 7% Sales Tax. What Is the total amount Jaylo paid for her new television? Calculating the final price of a product after discounts and taxes is a common task that involves understanding percentages and basic arithmetic. Whether you're shopping for electronics, clothing, or household items, knowing how to compute the total cost after discounts and taxes can help you make informed purchasing decisions and manage your budget effectively. In this article, we will explore the step-by-step process to determine the total amount Jaylo paid for her television, including detailed explanations of each calculation.

Understanding the Basic Components of the Purchase

Before diving into the calculations, it’s essential to understand the key components involved in Jaylo’s purchase:

- **Original Price:** The listed price of the television, which is $349.
- **Discount:** A reduction on the original price, in this case, 20%.
- **Sales Tax:** An additional charge applied to the discounted price, here 7%.

These components are common in retail transactions and mastering how to work with them can help you evaluate the true cost of any purchase.

Step 1: Calculate the Discount Amount

The first step is to determine how much money Jaylo saved thanks to the 20% discount.

Understanding the Discount

A 20% discount on a $349 item means:

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

Applying this:

$$
\text{Discount Amount} = 349 \times \frac{20}{100} = 349 \times 0.20
$$

Calculating:

$$
349 \times 0.20 = 69.80
$$

Result: Jaylo saved $69.80 on the television.

Calculating the Discounted Price

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

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

$$
\text{Discounted Price} = 349 - 69.80 = 279.20
$$

Result: The price of the television after the discount is $279.20.

Step 2: Calculate the Sales Tax

Now, we need to determine how much sales tax Jaylo paid on the discounted price.

Applying the Sales Tax Rate

The sales tax of 7% is applied to the discounted price:

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

$$
\text{Sales Tax} = 279.20 \times \frac{7}{100} = 279.20 \times 0.07
$$

Calculating:

$$
279.20 \times 0.07 = 19.54
$$

Result: The sales tax amounts to $19.54.

Understanding the Impact of Sales Tax

Sales tax increases the total amount payable by the buyer. It is calculated based on the price after discounts to ensure fair taxation.

Step 3: Calculate the Total Amount Paid

Finally, to find the total amount Jaylo paid, add the sales tax to the discounted price:

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

$$
\text{Total Price} = 279.20 + 19.54 = 298.74
$$

Result: Jaylo paid a total of $298.74 for her television.

Summary of the Calculation Process

To summarize, here’s a step-by-step breakdown:

1. Original Price of television: **$349**
2. Calculate discount: **20%** of $349 = **$69.80**
3. Subtract discount from original price: **$349 - $69.80 = $279.20**
4. Calculate sales tax on discounted price: **7%** of $279.20 = **$19.54**
5. Add sales tax to discounted price: **$279.20 + $19.54 = $298.74**

Final amount paid by Jaylo: $298.74

Additional Tips for Calculating Similar Purchases

Understanding how to compute the total cost of a purchase after discounts and taxes is a valuable skill. Here are some tips:

- Always convert percentages to decimal form when multiplying (e.g., 20% = 0.20).
- Round your final answers to two decimal places to reflect typical currency format.
- When multiple discounts or taxes are involved, apply each step sequentially for accuracy.
- Use calculators or spreadsheet software for complex calculations to minimize errors.

Practical Applications and Benefits of Mastering These Calculations

Being proficient in calculating discounts, taxes, and total prices offers numerous benefits:

- **Budget Management:** Helps you understand exactly how much you will pay for items.
- **Shopping Strategies:** Enables you to compare prices effectively and recognize genuine discounts.
- **Financial Literacy:** Builds foundational skills that are useful in various financial decisions.
- **Negotiation Skills:** Knowing the true cost empowers you to negotiate better deals.

Furthermore, these skills are applicable beyond shopping—whether calculating tip amounts at restaurants, estimating expenses for events, or managing budgets for personal or business finances.

Conclusion

In conclusion, calculating the final price of a product after discounts and taxes involves straightforward arithmetic operations but requires careful attention to detail. For Jaylo's case, the process involved:

1. Computing the discount amount ($69.80),
2. Deducting it from the original price to find the discounted price ($279.20),
3. Calculating the sales tax ($19.54),

4. Adding the tax to the discounted price to arrive at the total amount paid ($298.74).

By mastering these steps, you can confidently evaluate the total cost of any purchase, ensuring transparency and better financial planning.

Remember: Always verify your calculations and keep track of each step to avoid mistakes. Happy shopping!

Frequently Asked Questions

What is the discounted price of the television Jaylo bought?

The discounted price is $279.20, calculated by applying a 20% discount to the original $349 price.

How much sales tax did Jaylo pay for the television?

Jaylo paid approximately $19.54 in sales tax, which is 7% of the discounted price.

What is the total amount Jaylo paid for the television?

The total amount paid was approximately $298.74, including the discounted price and sales tax.

How do you calculate the price after a 20% discount?

Multiply the original price by 0.80 (100% - 20%) to find the discounted price.

How is the sales tax added to the discounted price?

Multiply the discounted price by 0.07 (7%) and add the result to the discounted price to get the final price.

If the original price was $349, what is the amount saved with a 20% discount?

Jaylo saved $69.80 on the television with the 20% discount.

What is the formula to find the final price including discount and sales tax?

Final price = (Original price × 0.80) + [(Original price × 0.80) × 0.07].

Additional Resources

Jaylo Bought A Television Priced At $349. She Received A 20% Discount And Paid A 7% Sales Tax. What Is the Total Cost?

When shopping for electronics, understanding the final price can sometimes be confusing, especially when discounts and taxes come into play. In this article, we'll explore a practical example involving Jaylo's recent purchase of a television. We will break down the calculation step-by-step to understand how discounts and sales tax affect the total amount paid, providing both clarity and insight into similar transactions.

Understanding the Initial Price and Its Significance

Before diving into the calculations, let's establish the baseline:

- Initial Price of the Television: $349

This is the manufacturer's or retailer's listed price before any reductions or additional charges. Recognizing this initial figure is crucial because all subsequent calculations are based on this starting point.

Calculating the Discount Amount

The 20% Discount

Jaylo received a 20% discount on the original price. To compute the amount of this discount:

1. Convert the percentage to a decimal:

20% = 0.20

2. Multiply the original price by this decimal:

Discount Amount = $349 × 0.20 = $69.80

This means Jaylo saved $69.80 off the original price due to the discount.

Determining the Discounted Price

Subtract the discount amount from the original price:

- Discounted Price = Original Price - Discount Amount
- Discounted Price = $349 - $69.80 = $279.20

So, after applying the 20% discount, Jaylo's new price for the television is $279.20.

Applying the Sales Tax

The 7% Sales Tax

In many regions, sales tax is calculated on the price after discounts. For Jaylo's purchase, the 7% sales tax applies to the discounted price.

1. Convert the sales tax percentage to decimal:

7% = 0.07

2. Calculate the sales tax amount:

Sales Tax = Discounted Price × 0.07 = $279.20 × 0.07 ≈ $19.54

This amount represents the additional cost due to sales tax.

Final Total Cost

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

- Total Cost = Discounted Price + Sales Tax
- Total Cost = $279.20 + $19.54 ≈ $298.74

Therefore, Jaylo paid approximately $298.74 for her television after discounts and taxes.

Step-by-Step Summary of the Calculation

Step	Description	Calculation	Result
1	Original Price	—	$349.00
2	Discount Amount	$349 × 0.20	$69.80
3	Price after Discount	$349 - $69.80	$279.20
4	Sales Tax	$279.20 × 0.07	$19.54
5	Final Price	$279.20 + $19.54	$298.74

Additional Considerations

Rounding and Currency Precision

In real-world transactions, prices are typically rounded to the nearest cent, which is why the final total is approximately $298.74 rather than a precise figure with more decimal places.

Regional Variations

It's important to note that sales tax rates vary by jurisdiction. Some regions might have higher or lower rates, or even additional taxes. Always check local rates to ensure accurate calculations.

Discount Types

The example assumes a straightforward percentage discount. Other discounts, such as fixed amounts or promotional offers, would require different calculation methods.

Practical Applications and Tips

Understanding how discounts and taxes impact the final price can help consumers make more informed decisions. Here are some tips:

- Always identify the original price first.
- Convert percentage discounts and taxes to decimal form for calculations.
- Calculate each component step-by-step to avoid errors.
- Be aware of regional tax rates and possible additional fees.
- Use calculator tools or spreadsheets for complex transactions.

Conclusion

Jaylo's purchase illustrates a common retail scenario involving multiple price modifications. By methodically calculating the discount and sales tax, we arrive at a clear understanding of the final amount paid. Such calculations are not only useful for personal budgeting but also essential for understanding pricing strategies and making informed shopping decisions.

In summary, from an initial price of $349, a 20% discount reduces the cost to approximately $279.20. Adding a 7% sales tax of about $19.54 results in a total payment of roughly $298.74. Recognizing the step-by-step process behind these figures empowers consumers to better navigate the complexities of retail pricing and ensure transparency in their transactions.

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