Mia Wants To Purchase A Pair Of Jeans That Cost $36. They Are On Sale For 20% Off. What Are Two Ways

Mia Wants To Purchase A Pair Of Jeans That Cost $36. They Are On Sale For 20% Off. What Are Two Ways to determine the sale price and understand the discount? Whether you're a student learning basic math concepts or someone interested in shopping smarter, understanding how to calculate discounts is an essential skill. In this article, we will explore two effective methods to find out how much Mia will pay for her jeans after the discount, along with tips to help you master similar calculations in your everyday shopping.

Understanding the Discount: What Does 20% Off Mean?

Before diving into the calculations, it's important to comprehend what a 20% discount entails. A percentage off means that you're reducing the original price by a certain fraction. In this case, 20% of $36 will be subtracted from the original price to get the sale price.

- Percent Meaning: 20% equals 0.20 in decimal form.
- Purpose: To find the amount saved and the final price.

Method 1: Calculating the Discount Amount First

This method involves two steps: first, finding the amount of discount, and second, subtracting it from the original price.

Step 1: Find the Discount Amount

Multiply the original price by the decimal equivalent of the percentage discount:
- Calculation: $36 × 0.20 = $7.20

This means Mia saves $7.20 on her jeans.

Step 2: Subtract the Discount from the Original Price

Subtract the discount amount from the original price:
- Calculation: $36 − $7.20 = $28.80

Result: Mia will pay $28.80 for the jeans after the discount.

Method 2: Calculating the Sale Price Directly Using the Percentage

Instead of calculating the discount separately, you can directly calculate the sale price by finding the percentage of the original price that Mia has to pay.

Step 1: Determine the Percentage Mia Pays

Since the discount is 20%, Mia pays 100% − 20% = 80% of the original price.

- Convert 80% to decimal: 0.80

Step 2: Multiply the Original Price by the Remaining Percentage

Calculate the sale price:
- Calculation: $36 × 0.80 = $28.80

Result: Once again, Mia’s final price is $28.80.

Additional Tips for Calculating Discounts

Understanding these methods can help you quickly determine sale prices in various shopping scenarios. Here are some useful tips:

- **Know Your Percentages:** Converting percentages to decimals simplifies calculations (divide by 100).
- **Use Multiplication:** Always multiply the original price by the decimal form of the percentage to find discounts or sale prices.
- **Check Your Work:** Confirm by doing both methods to ensure consistency.
- **Practice Regularly:** The more you practice, the faster and more accurate your calculations will become.

Practical Applications Beyond Shopping

Calculating discounts isn’t just useful for shopping; it has practical applications in various fields:

- Budgeting: Knowing how discounts affect total expenses.
- Business: Setting sale prices or discounts for products.
- Education: Building foundational math skills.

Summary

In summary, when Mia wants to purchase jeans originally costing $36 that are on sale for 20% off, there are two straightforward ways to determine the final price:

1. Calculate the discount amount ($36 × 0.20 = $7.20), then subtract it from the original price ($36 − $7.20 = $28.80).
2. Calculate the sale price directly by multiplying the original price by the remaining percentage (80%, or 0.80), resulting in $36 × 0.80 = $28.80.

Both methods lead to the same final price, which is $28.80. Mastering these techniques will enable you to make smart purchasing decisions and improve your math skills for everyday scenarios.

Remember: Always double-check your calculations, and with practice, you'll become more confident in handling discounts and percentages in no time!

Frequently Asked Questions

What is the sale price of Mia's jeans after a 20% discount?

The sale price is $28.80, calculated by multiplying $36 by 0.80 (100% - 20%).

How can Mia calculate the discount amount on the jeans?

She can multiply the original price ($36) by 0.20 to find the discount amount, which is $7.20.

What is an alternative way for Mia to find the sale price without calculating the discount first?

She can subtract the discount amount ($7.20) from the original price ($36) to get the sale price of $28.80.

If Mia has a $50 gift card, how much money will she have left after purchasing the jeans?

She will have $21.20 remaining, calculated by subtracting the sale price ($28.80) from $50.

What percentage of the original price does Mia pay after the discount?

Mia pays 80% of the original price since the jeans are 20% off.

How can Mia verify the sale percentage applied to the jeans?

She can divide the discount amount ($7.20) by the original price ($36) and multiply by 100 to get 20%.

What is the total amount Mia saves by purchasing the jeans on sale?

Mia saves $7.20 on the purchase.

If the sale was instead 25% off, what would be the new sale price of the jeans?

The new sale price would be $27, calculated by multiplying $36 by 0.75 (100% - 25%).

How can Mia compare the two sale prices to decide which jeans to buy?

She can compare the sale prices, $28.80 at 20% off and $27 at 25% off, to see which is cheaper and better deal.

What are two ways Mia can calculate the sale price of the jeans?

First, multiply the original price by 0.80 to get the sale price, or subtract the discount amount ($7.20) from the original price.

Additional Resources

Mia Wants To Purchase A Pair Of Jeans That Cost $36. They Are On Sale For 20% Off. What Are Two Ways to calculate the discounted price? This question is a common scenario many shoppers encounter, especially during sales events.

Understanding how to determine the sale price accurately can save you money and help you make informed purchasing decisions. Whether you're a student trying to budget or a savvy shopper looking to maximize discounts, mastering these methods is essential. In this guide, we'll explore two straightforward ways to find the sale price of Mia's jeans, ensuring you can confidently calculate discounts in any shopping situation.

Understanding the Context

Before diving into the methods, let’s clarify the scenario:

- Original Price: $36
- Discount: 20% off
- Goal: Find the sale price after applying the discount

Knowing these parameters helps us focus on the calculation process. The key is to understand what a 20% discount means in monetary terms and how to apply it effectively.

Method 1: Using Multiplication to Find the Discounted Price

This is a direct and intuitive approach, often preferred for its simplicity and clarity.

Step 1: Convert the Percentage Discount to a Decimal

Percentages are often easier to work with when converted into decimals:

- 20% = 20/100 = 0.20

Step 2: Find the Discount Amount

Multiply the original price by the decimal equivalent of the discount:

- Discount amount = Original price × Discount rate

For Mia's jeans:

- Discount amount = $36 × 0.20 = $7.20

This means Mia will save $7.20 on the purchase.

Step 3: Subtract the Discount from the Original Price

To find the sale price, subtract the discount amount from the original price:

- Sale price = Original price - Discount amount

Calculating Mia's jeans:

- Sale price = $36 - $7.20 = $28.80

Summary of Method 1:

Step	Calculation	Result
Convert percentage to decimal	20% = 0.20	0.20
Calculate discount	$36 × 0.20	$7.20
Subtract discount from original price	$36 - $7.20	$28.80

This method is particularly useful because it breaks down the process into clear, manageable steps. It also lays the groundwork for understanding how discounts work in real-world shopping scenarios.

Method 2: Using the Complement of the Discount (Multiplying by the Sale Percentage)

Another effective way to find the sale price is to determine the percentage of the original price that Mia will pay after the discount, then multiply the original price by that percentage.

Step 1: Find the Remaining Percentage

Since the discount is 20%, the remaining percentage Mia pays is:

- 100% - 20% = 80%

Converted into decimal form:

- 80% = 0.80

Step 2: Calculate the Sale Price

Multiply the original price by the remaining percentage:

- Sale price = Original price × Remaining percentage

Applying this to Mia’s jeans:

- Sale price = $36 × 0.80 = $28.80

Summary of Method 2:

Step	Calculation	Result
Determine remaining percentage	100% - 20% = 80%	80%
Convert to decimal	80% = 0.80	0.80

| Calculate sale price | $36 × 0.80 | $28.80 |

This approach emphasizes understanding the proportion of the original price Mia will pay after the discount, making it a quick mental calculation once familiar.

Comparing the Two Methods

Both methods arrive at the same result — Mia’s jeans will cost $28.80 after the 20% discount. The choice of method often depends on personal preference or context:

- Method 1 (calculate discount first): Useful when you need to know how much you save.
- Method 2 (calculate sale price directly): Faster for quick estimations and when you prefer working with the remaining percentage.

Additional Tips for Calculating Discounts

Tip 1: Use a Discount Formula

For those who prefer formulas, the sale price can be calculated directly using:

Sale Price = Original Price × (1 - Discount Rate)

For Mia’s jeans:

- Sale Price = $36 × (1 - 0.20) = $36 × 0.80 = $28.80

Tip 2: Practice with Different Percentages

Understanding these methods allows you to handle various discounts, such as 15%, 25%, or even higher percentages like 50%. Practice helps in quick mental calculations.

Tip 3: Utilize Percent-Off Calculators

Many online calculators can quickly compute sale prices. However, knowing how to do it manually ensures confidence and accuracy.

Practical Application: Budgeting and Saving Money

Knowing how to calculate discounts isn't just about shopping; it’s also a valuable skill for budgeting and financial planning. For example, if Mia has

a fixed budget, she can determine whether the discounted price fits her budget before heading to the store.

Scenario:

- Mia has $30 to spend.
- The jeans cost $36, on sale for 20% off.
- Using the calculation, the sale price is $28.80.
- Since $28.80 < $30, she can afford the jeans.

Conclusion

Mia Wants To Purchase A Pair Of Jeans That Cost $36. They Are On Sale For 20% Off. What Are Two Ways to calculate the sale price? As demonstrated, both methods — calculating the discount amount and subtracting from the original price, or multiplying by the remaining percentage — are effective, reliable, and easy to implement. Understanding these techniques empowers shoppers to make quick, accurate decisions and maximize their savings during sales. Whether you're shopping for jeans, electronics, or appliances, mastering these methods ensures you always know exactly what you'll pay after discounts. Happy shopping!

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