

Marilyn Bought Cotton That Sells For\$2.35 A Yard. To The Nearest Cent,how Much Will She Pay For 3.5 Yardsof

Marilyn Bought Cotton That Sells For \$2.35 A Yard. To The Nearest Cent, How Much Will She Pay For 3.5 Yards of fabric? This simple question involves basic multiplication and rounding skills, but it also opens the door to understanding how to calculate costs for fabric shopping and similar purchases. Whether you're a beginner in sewing, a student learning about math applications, or someone interested in budgeting, understanding how to find the total price for a given length of fabric is essential. In this article, we'll explore the step-by-step process Marilyn used to determine her total cost, discuss important concepts like unit pricing, and provide helpful tips for calculating costs for fabric and other items sold by the yard.

Understanding the Cost Per Yard

What Does "\$2.35 a Yard" Mean?

When fabric is sold by the yard, the price is usually expressed as a cost per yard, which indicates how much you pay for each yard of fabric. In Marilyn's case, the cotton she bought costs \$2.35 per yard. This means if she were to buy exactly one yard, she would pay \$2.35. If she bought two yards, she'd pay twice that amount, and so on.

The Importance of Precise Pricing

Knowing the price per yard allows shoppers to determine the total cost for any length of fabric they need. It also helps compare prices among different fabrics or stores. For Marilyn, understanding her cost per yard is the first step to calculating her total payment for 3.5 yards.

Calculating Total Cost for 3.5 Yards

The Basic Formula

To find the total cost for fabric sold by the yard, multiply the price per yard by the number of yards desired:

- **Total Cost** = *Price per Yard* × *Number of Yards*

For Marilyn's case:

- Total Cost = \$2.35 × 3.5 yards

Step-by-Step Calculation

Let's perform the calculation step-by-step:

1. Write down the multiplication problem: 2.35×3.5
2. To make multiplication easier, eliminate the decimal points temporarily by multiplying both numbers by 100:
 - $2.35 \times 100 = 235$
 - $3.5 \times 100 = 350$
3. Now multiply 235 by 350:
 - $235 \times 350 = ?$
4. Calculate 235×350 :
 - $235 \times 350 = (235 \times 300) + (235 \times 50)$
 - $= (235 \times 300) + (235 \times 50)$
5. Compute each part:
 - $235 \times 300 = 235 \times 3 \times 100 = 705 \times 100 = 70,500$
 - $235 \times 50 = 235 \times 5 \times 10 = 1,175 \times 10 = 11,750$
6. Add the results:
 - $70,500 + 11,750 = 82,250$

7. Remember, since we multiplied both original numbers by 100, divide the result by 10,000 (because $100 \times 100 = 10,000$):

$$\circ 82,250 \div 10,000 = 8.225$$

8. Therefore, the total cost in dollars is \$8.225, which rounds to \$8.23 when rounded to the nearest cent.

Rounding to the Nearest Cent

Why Rounding Matters

Prices are typically rounded to the nearest cent because currency denominations are in cents. In Marilyn's case, the total cost comes out to \$8.225. Since the third decimal place (the thousandths) is 5 or more, we round up the second decimal place:

- $8.225 \rightarrow \$8.23$

This ensures the amount is accurate and consistent with standard currency formatting.

Final Total Cost

Based on the calculation and rounding, Marilyn will pay approximately **\$8.23** for 3.5 yards of cotton that costs \$2.35 per yard.

Additional Tips for Calculating Fabric Costs

Use a Calculator for Accuracy

While manual calculations are useful for understanding, using a calculator ensures accuracy, especially for more complex or longer calculations.

Remember to Round Properly

Always round to the nearest cent when dealing with currency. This is important for budgeting and avoiding discrepancies in payments.

Check the Price Per Yard

Sometimes, fabrics are sold in increments less than a yard or in bundles. Always verify the price per yard to accurately calculate the total cost.

Practical Examples and Applications

Buying Fabric for a Project

Suppose you want to sew a dress and need 4 yards of fabric. If the fabric costs \$2.35 per yard, you can calculate the total cost as follows:

- Total Cost = $\$2.35 \times 4 = \9.40

Similarly, if you're purchasing fabric for quilting or home decor, understanding these calculations helps manage your budget effectively.

Cost Comparison Shopping

Different stores may sell similar fabrics at varying prices. Knowing how to quickly calculate total costs allows you to compare options and choose the best deal.

Conclusion: Applying the Math to Real-Life Shopping

Calculating the total price for fabric sold by the yard is a straightforward process once you understand the key concepts:

- Identify the price per yard
- Multiply by the number of yards needed
- Round to the nearest cent

In Marilyn's case, buying 3.5 yards of cotton at \$2.35 per yard costs her approximately \$8.23. This simple calculation empowers shoppers, students, and hobbyists to make informed purchasing decisions and stay within their budgets.

Whether you're buying fabric, wallpaper, or any other item sold by length, mastering these calculation skills ensures you get the most out of your spending and avoid surprises at checkout.

Frequently Asked Questions

How much will Marilyn pay for 3.5 yards of cotton priced at \$2.35 per yard?

Marilyn will pay \$8.23 for 3.5 yards of cotton.

What is the total cost of 3.5 yards of cotton that costs \$2.35 per yard?

The total cost is \$8.23.

If cotton costs \$2.35 per yard, how do you calculate the total price for 3.5 yards?

Multiply 3.5 yards by \$2.35 per yard: $3.5 \times 2.35 = \$8.23$.

To the nearest cent, what is the cost of 3.5 yards of cotton priced at \$2.35 per yard?

The cost is \$8.23.

Is the total cost for 3.5 yards of cotton more than \$8?

Yes, it is \$8.23, which is more than \$8.

Why is Marilyn's total payment for 3.5 yards of cotton \$8.23?

Because 3.5 yards multiplied by the price per yard (\$2.35) equals \$8.23.

How would you round the cost of 3.5 yards of cotton

to the nearest cent?

Since the total is exactly \$8.23, it remains \$8.23 when rounded to the nearest cent.

If Marilyn had bought 4 yards of cotton at \$2.35 per yard, how much would she pay?

She would pay \$9.40.

Additional Resources

Marilyn Bought Cotton That Sells For \$2.35 A Yard: Calculating the Total Cost for 3.5 Yards

When it comes to purchasing fabric, whether for sewing projects, home decor, or crafting, understanding how to calculate costs based on price per yard is essential. Marilyn's recent purchase of cotton fabric at a rate of \$2.35 per yard offers a practical example of how to approach such calculations accurately. In this comprehensive review, we'll explore the detailed process of determining her total expenditure for 3.5 yards of cotton fabric, delve into related concepts such as unit pricing, rounding, and real-world applications, and provide insights to help you become confident in similar calculations.

Understanding the Basics: Price Per Yard and Total Cost

Before diving into calculations, it's important to clarify some foundational concepts.

What Is Price Per Yard?

- The price per yard indicates how much one yard of fabric costs.
- It is a standard measure used in the textile and fabric industry.
- Knowing this price allows consumers to estimate total costs based on the amount they plan to purchase.

Why Is It Important?

- Enables budgeting and cost estimation.
- Helps compare prices across different vendors or fabrics.
- Ensures you don't overspend when purchasing fabric in specific lengths.

Calculating the Total Cost for 3.5 Yards of Cotton Fabric

The core calculation involves multiplying the price per yard by the number of yards Marilyn wishes to buy.

Given Data

- Price per yard: \$2.35
- Desired yardage: 3.5 yards

Mathematical Formula

```
\[
\text{Total Cost} = \text{Price per Yard} \times \text{Number of Yards}
\]
```

Applying the data:

```
\[
\text{Total Cost} = \$2.35 \times 3.5
\]
```

Step-by-Step Calculation

1. Convert the multiplication into manageable parts:

```
\[
\$2.35 \times 3.5 = (\$2.35 \times 3) + (\$2.35 \times 0.5)
\]
```

2. Calculate each part:

- $\$2.35 \times 3 = \7.05
- $\$2.35 \times 0.5 = \1.175

3. Add the results:

```
\[
\$7.05 + \$1.175 = \$8.225
\]
```

Thus, the total cost before rounding is \\$8.225.

Rounding to the Nearest Cent

In monetary transactions, amounts are typically rounded to the nearest cent because currency is divided into hundredths.

How to round \\$8.225 to the nearest cent?

- Look at the thousandths place (third decimal): 5
- Since the thousandths digit is 5 or more, round up the hundredths place.

Applying rounding rules:

```
\[
\$8.225 \rightarrow \$8.23
\]
```

Therefore, Marilyn will pay \\$8.23 for 3.5 yards of cotton fabric.

Implications and Practical Considerations

Calculating costs for fabric purchases is more than just a math exercise; it impacts budgeting, shopping strategies, and even negotiation.

Budgeting and Cost Estimation

- Knowing the total cost helps in planning expenses.
- If Marilyn has a budget of \\$10, she can comfortably purchase 3.5 yards at \\$2.35 per yard.
- Understanding the per-yard price allows for quick calculations if she considers buying more or less fabric.

Comparing Prices Across Vendors

- If another vendor sells the same fabric at \\$2.50 per yard, Marilyn can compare costs:

$$\begin{aligned} & \backslash[\\ & \$2.50 \times 3.5 = \$8.75 \\ & \backslash] \end{aligned}$$

- Slightly more expensive; thus, the first vendor offers better value.
- Conversely, if a vendor offers a discount, she can recalculate accordingly.

Bulk Purchases and Discounts

- Sometimes, buying in larger quantities may lead to discounts.
- Calculating the total cost for different yardages helps in negotiating better deals.

Additional Factors to Consider

While straightforward calculations provide a good estimate, real-world purchasing involves other considerations.

Tax and Additional Fees

- Depending on the location, sales tax may apply.
- For example, if the sales tax rate is 7%, then:

$$\begin{aligned} & \backslash[\\ & \text{Tax} = \$8.23 \times 0.07 = \$0.5761 \\ & \backslash] \end{aligned}$$

- Total cost including tax:

$$\begin{aligned} & \backslash[\\ & \$8.23 + \$0.58 \approx \$8.81 \\ & \backslash] \end{aligned}$$

- Always check local tax rates for accurate budgeting.

Availability and Fabric Width

- The calculation assumes fabric is sold by the yard without restrictions.
- Some fabrics may have specific minimum cuts or widths affecting total cost or usability.

Currency and Rounding Practices in Different Countries

- While the example uses U.S. dollars, other currencies may have different subdivision practices.
- Rounding conventions may vary, so it's important to be aware of local standards.

Real-World Applications and Tips

Understanding these calculations is useful beyond just Marilyn's purchase.

For Sewists and Hobbyists

- Always double-check the price per yard before purchasing.
- Use calculator tools or spreadsheets for quick estimates when buying multiple fabrics.

For Retailers and Sellers

- Clearly display price per yard to aid customer calculations.
- Provide estimates with taxes included to help customers plan their budgets.

For Educational Purposes

- Practice calculations with different prices and yardages.
- Use real-world scenarios to understand the importance of accurate rounding and estimation.

Summary of Key Points

- Marilyn's fabric costs \$2.35 per yard.
- For 3.5 yards, the raw calculation yields \$8.225.
- Rounded to the nearest cent, Marilyn pays \$8.23.
- Additional considerations like taxes can increase the total.
- Calculations are essential for budgeting, comparison shopping, and planning.

Conclusion

Calculating the total cost of fabric purchases based on price per yard is an essential skill for anyone involved in sewing, crafting, or retail. Marilyn's example illustrates how simple multiplication, combined with proper rounding, provides an accurate estimate of her expenses. By understanding the underlying principles and considering factors like taxes and discounts, consumers can make informed decisions, optimize their spending, and ensure they get the best value for their money.

Whether you're buying fabric for a personal project or managing a retail inventory, mastering these calculations enhances your confidence and efficiency. Remember, always double-check your work and consider additional costs to avoid surprises at checkout. With practice, estimating costs becomes second nature, empowering you to make smarter purchasing decisions and better manage your craft or business budget.

Marilyn Bought Cotton That Sells For 2 35 A Yard To The Nearest Cent How Much Will She Pay For 3 5 Yardsof

Marilyn Bought Cotton That Sells For 2 35 A Yard To The Nearest Cent How Much Will She Pay For 3 5 Yardsof

Related Articles

- [Please Help ASAP!!! Thank You So Much!!! Just Want Confirm My Answer And It Is A\) -5. Consider The Function](#)
- [The Goal Of This Question Is To Create A Graphical User Interface That Will Allow Users To Read Information](#)
- [Directions: Students Are To Select A Current Business Article And Summarize It Using The Below Information.](#)

[Back to Home](#)