

Find the unit rate for buying three tires at \$80 each and getting a fourth tire free

Find the unit rate for buying three tires at \$80 each and getting a fourth tire free — a common question for shoppers looking to maximize value and make informed purchasing decisions. Understanding how to calculate the unit rate in such promotional deals is essential for comparing offers, budgeting effectively, and ensuring you get the best bang for your buck. In this comprehensive guide, we'll explore the concept of unit rate calculation, walk through step-by-step examples, and provide tips to help you analyze similar deals in the future.

What Is a Unit Rate and Why Is It Important?

Understanding the Concept of Unit Rate

A unit rate is a way to compare different quantities by expressing them in terms of a single unit. It tells you how much one item costs or how many units you get per dollar, making it easier to compare prices across various products or deals.

For example, if you buy 3 tires for \$240 total, the unit rate is the cost per tire:

$$\text{Unit Rate} = \frac{\text{Total Cost}}{\text{Number of Units}}$$

Why Is Calculating the Unit Rate Beneficial?

Calculating the unit rate helps you:

- Compare different deals effectively — not just based on total price but on value per item.
- Identify the best deal among multiple offers.
- Budget accurately by understanding the true cost of each item.
- Avoid deceptive marketing tactics that might highlight total savings without considering per-unit costs.

Analyzing the Promotional Deal: Three Tires at \$80 Each + Free Tire

Let's take a closer look at the specific deal:

- You buy three tires at \$80 each.
- You receive a fourth tire for free.

This is a common promotional tactic to encourage bulk purchases. To find the unit rate, we need to determine the total cost and total number of tires obtained.

Step-by-Step Calculation

Step 1: Calculate the total cost for the paid tires

- Cost per tire = \$80
- Number of paid tires = 3

$$\text{Total paid cost} = 3 \times \$80 = \$240$$

Step 2: Count the total number of tires received

- Paid tires = 3
- Free tires = 1

$$\text{Total tires} = 3 + 1 = 4$$

Step 3: Calculate the unit rate

$$\text{Unit Rate} = \frac{\text{Total cost}}{\text{Total tires}} = \frac{\$240}{4} = \$60$$

Result:

The unit rate for this promotional deal is \$60 per tire.

This means that, effectively, each tire costs you \$60, which is \$20 less than the original price of \$80 per tire.

Implications of the Calculated Unit Rate

Knowing that the unit rate is \$60 per tire allows consumers to:

- Compare with other deals: If another offer provides tires at \$70 each without a free tire, the deal at \$60 per tire is more cost-effective.
- Assess the true savings: You're saving \$20 per tire compared to buying individually at \$80.
- Make informed purchasing decisions: This calculation confirms that the promotional offer provides significant value.

How to Use the Unit Rate to Compare Different Tire Deals

Scenario 1: Buying Tires at a Different Price

Suppose a competitor offers tires at \$70 each, but no free tires are included. To compare:

- Total cost for 4 tires = $(4 \times \$70 = \$280)$
- Unit rate = $(\$280/4 = \$70)$

Comparison:

Your current deal offers a unit rate of \$60, which is better than \$70.

Scenario 2: Purchasing More Tires with a Deal

Imagine another promotion:

- Buy 5 tires at \$75 each, no free tires.

Total cost:

$$[5 \times \$75 = \$375]$$

Unit rate:

$$[\$375/5 = \$75]$$

Compared to your deal at \$60 per tire, this is less economical per tire.

Additional Considerations When Calculating Unit Rate Deals

1. Hidden Costs and Additional Fees

Always factor in:

- Installation fees
- Taxes
- Warranties or service charges

If these are significant, they may affect the overall value.

2. Quality and Brand Factors

Cheaper tires might not last as long or perform as well, so consider:

- Tire durability
- Brand reputation
- Warranty coverage

These factors influence the overall value, not just the initial price.

3. Long-Term Savings

A deal that offers a lower unit rate initially might save money over the lifespan of the tires if they last longer.

Tips for Finding the Best Tire Deals Using Unit Rate Analysis

- Always calculate the unit rate before making a purchase.
- Compare multiple deals side-by-side using the same unit rate metric.
- Consider the total lifespan of the tires, not just the initial cost.
- Check for additional perks like free maintenance, warranties, or discounts.
- Beware of marketing tricks that highlight total savings without considering per-unit costs.

Conclusion: Making Smart Tire Purchases with Unit Rate Calculation

Understanding how to find and interpret the unit rate when buying tires with promotional deals is a valuable skill for consumers. In the case of buying three tires at \$80 each and receiving a fourth free, the unit rate is \$60 per tire, offering significant savings compared to the individual price. By applying this approach to other tire deals and promotions, shoppers can ensure they make cost-effective decisions that balance price, quality, and long-term value.

Remember, always perform your own unit rate analysis, consider additional costs, and weigh other factors such as durability and warranty to get the best overall value. This

knowledge empowers you to shop smarter, save money, and choose the best tires for your needs.

Keywords for SEO optimization:

unit rate, tire deal, buy 3 tires get 1 free, tire price comparison, calculating unit rate, tire savings, promotional tire offers, best tire deals, cost per tire, tire shopping tips

Frequently Asked Questions

What is the total cost for buying three tires at \$80 each with a fourth tire free?

The total cost for three tires at \$80 each is $3 \times \$80 = \240 , and the fourth tire is free, so total cost remains \$240.

How do you calculate the unit rate for each tire in this promotion?

Divide the total cost by the total number of tires purchased, which is 4, so $\$240 \div 4 = \60 per tire.

What is the unit rate per tire when buying three tires at \$80 each and getting one free?

The unit rate per tire is \$60.

How does getting a free tire affect the price per tire compared to paying \$80 each?

It reduces the price per tire from \$80 to \$60 because the total cost is spread over four tires instead of three.

If I buy 8 tires with this promotion, what is the total cost and per tire rate?

You pay for 6 tires at \$80 each (\$480), and get 2 tires free, so total cost is \$480. The per tire rate is $\$480 \div 8 = \60 .

Is the unit rate per tire better when buying more tires under this promotion?

Yes, because the more tires you buy with the promotion, the lower the effective cost per

tire, which is \$60 regardless of quantity.

What assumptions are made when calculating the unit rate in this promotion?

It is assumed that the free tires are included in the total quantity and that the total cost is divided evenly among all tires purchased, including the free ones.

How would the unit rate change if the tires cost \$90 each instead of \$80 with the same promotion?

Total cost for 3 tires at \$90 each is \$270; with a fourth free, total cost remains \$270 for 4 tires, so the unit rate is $\$270 \div 4 = \67.50 .

What is the benefit of calculating the unit rate in this tire promotion?

Calculating the unit rate helps you understand the actual cost per tire, allowing you to compare deals and determine the best value for your money.

Additional Resources

Find the unit rate for buying three tires at \$80 each and getting a fourth tire free — this problem presents an excellent opportunity to explore the concept of unit rates and how they help consumers make informed purchasing decisions. Whether you're shopping for tires, groceries, or any bulk items, understanding how to compute and interpret unit rates ensures you're getting the best deal possible. In this guide, we'll walk through the process step-by-step, clarify key concepts, and provide practical tips to master similar problems in everyday life.

Understanding the Concept of Unit Rate

Before diving into calculations, it's important to understand what a unit rate is. In mathematics and everyday shopping, a unit rate compares a quantity to one unit of another quantity, typically expressed as "cost per item" or "miles per gallon."

What is a Unit Rate?

- Definition: A unit rate is a ratio that compares a quantity to one unit of another quantity.
- Purpose: It helps compare prices or quantities easily, allowing consumers to determine which option offers the best value.
- Examples:
 - Cost per tire
 - Miles per gallon
 - Price per ounce

In our specific problem, finding the unit rate for buying three tires at \$80 each and getting a fourth tire free involves calculating the cost per tire when considering the entire deal.

Breaking Down the Problem

Let's restate the problem clearly:

"Find the unit rate for buying three tires at \$80 each and getting a fourth tire free."

This scenario involves:

- Purchasing 3 tires at \$80 each.
- Receiving 1 additional tire free.
- Determining the cost per tire for this entire deal.

Step 1: Find the total cost for the tires purchased

Since each tire costs \$80 and three tires are bought:

- Total cost for 3 tires = $3 \times \$80 = \240

Step 2: Determine the total number of tires received

- The deal includes 3 paid tires plus 1 free tire, totaling:
- Total tires = 3 (paid) + 1 (free) = 4 tires

Step 3: Calculate the unit rate (cost per tire)

- Total cost for 4 tires = \$240 (since the fourth tire is free)
- Therefore, unit rate = Total cost / Total number of tires = $\$240 / 4$ tires
- Simplify the calculation:
- $\$240 / 4 = \60

So, the unit rate for each tire in this deal is \$60.

Interpreting the Result

The key takeaway here is that by taking advantage of the deal, you're effectively paying \$60 per tire, which is less than the original price of \$80 per tire.

Why is this important?

- This calculation helps you compare the cost per tire in different deals.

- It enables you to determine whether a promotional offer provides genuine savings.
- It emphasizes the importance of considering total cost and total items instead of just unit prices.

Practical Tips for Calculating Unit Rates

When approaching similar problems, keep these tips in mind:

1. Identify the Total Cost and Total Quantity

- Determine the total amount paid for all items involved.
- Count the total number of items received (including free items).

2. Break Down the Deal Step-by-Step

- Calculate the cost of the paid items.
- Add any free items to find the total number of items.

3. Compute the Unit Rate

- Divide the total cost by the total number of items.
- Simplify the ratio to find the cost per item.

4. Compare with Regular Prices

- Check the regular price per item (e.g., \$80 per tire).
- Determine whether the deal offers savings.

Additional Examples

Let's explore a few more scenarios to reinforce the concept.

Example 1: Buying 5 books at \$15 each with a 20% discount

- Total cost before discount: $5 \times \$15 = \75
- Discount amount: $20\% \text{ of } \$75 = 0.20 \times \$75 = \$15$
- Total cost after discount: $\$75 - \$15 = \$60$
- Total books: 5
- Unit rate: $\$60 / 5 = \12 per book

Example 2: Grocery deal — 2 for \$5 on cereal

- Total cost for 2 boxes: \$5
- Total boxes: 2
- Unit rate: $\$5 / 2 = \2.50 per box

Visualizing the Deal: Why It Matters

Visual aids can make understanding these deals clearer.

Item	Cost	Number of Items	Total Cost	Cost per Item
Tires (regular)	\$80	1	\$80	\$80
Tires (deal)	\$240	4	\$240	\$60

As shown, the deal reduces the cost per tire from \$80 to \$60, making it a better value.

Final Thoughts: Making Smarter Purchases

Understanding how to find the unit rate for buying three tires at \$80 each and getting a fourth tire free equips consumers with the tools to analyze promotional offers critically. Always consider:

- The total cost versus the total number of items.
- How the unit price compares with regular prices.
- The value of free items in the context of overall savings.

By mastering these calculations, shoppers can confidently evaluate deals and ensure they're getting the best possible value.

Summary

- The unit rate in this scenario is \$60 per tire.
- It is calculated by dividing the total cost (\$240) by the total number of tires (4).
- The deal effectively lowers the price per tire from \$80 to \$60.
- Applying these principles helps make smarter purchasing decisions across various contexts.

Remember: Always break down the problem into manageable steps, compare unit rates, and consider the overall savings to maximize your value when shopping.

[Find The Unit Rate For Buying Three Tires At 80 Each And Getting A Fourth Tire Free](#)

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