LESSON MAKER PRO

Car Cost Choices

Compare what you pay, what you keep, and what you can afford upfront.

HIGH SCHOOL · MM.FPM.A.8

MM.FPM.A.8 "Investigate the advantages and disadvantages of various means of paying for an automobile, including leasing, purchasing by cash, and purchasing by loan."

NAME _____ DATE _____

COMPARE TOTAL COSTS

To compare options over the same time, add upfront payments, monthly payments, and fees. If you own the car and sell it at the end, subtract the sale price to find your net cost. Also consider how much cash each option requires upfront and whether you will own the car at the end.

WORKED EXAMPLE

A car costs $7,300 in cash. A loan requires $1,300 down and 25 payments of $260. How much more would you pay with the loan?

1. 25 × $260 = $6,500 in payments.
2. $1,300 + $6,500 = $7,800 paid with the loan.
3. $7,800 - $7,300 = $500.

Answer: The loan costs $500 more than paying cash.

PRACTICE 6 problems

1 A car costs $6,400 in cash, plus $320 in tax and title fees. What is the total amount paid?

ANSWER _____

2 A loan requires $2,000 down and 30 monthly payments of $180. What is the total amount paid?

ANSWER _____

3 A car costs $8,100 in cash. A loan requires $1,500 down and 40 payments of $190. Find the total paid with the loan and the amount it costs above the cash price.

ANSWER _____

4 A lease requires $1,100 upfront, 24 payments of $225, and a $350 fee when you return the car. What is the total amount paid?

ANSWER _____

5 You can lease a car for $950 upfront and 36 payments of $205, with no other fees, or buy it for $8,700 cash. Which option requires less money paid over 36 months, and by how much? Do not count the car's possible sale value.

ANSWER _____

6 You can buy a car for $9,400 cash or pay $2,400 down and make 35 loan payments of $215. How much more does the loan cost, and what is one reason someone might still choose it?

ANSWER _____

APPLY IT Show your work

1 You need a car for 27 months while working a part-time job. A lease costs $850 upfront, 27 payments of $230, and a $250 return fee. Or you can buy a car for $7,850 cash and sell it after 27 months for $2,100. Assume these are all the costs. Which option has the lower net cost, and by how much?

WORK SPACE

ANSWER _____

2 For a two-year internship, you can buy a car for $10,800 cash or pay $1,800 down and make 24 loan payments of $410. You expect to sell the car for $6,000 at the end either way. Assume there are no other costs. Find each option's net cost and explain one reason you might choose the loan.

WORK SPACE

ANSWER _____

CHALLENGE One step up

You can spend at most $3,000 upfront and need a car for 24 months. Your options are: buy for $12,600 cash and sell for $8,000 at the end; pay $2,600 down and 24 loan payments of $450, then sell for $8,000; or lease for $1,400 upfront, 24 payments of $175, and a $275 return fee. Assume no other costs. Which options meet your upfront limit? Of those options, which has the lower net cost, and by how much? Show your calculations.

WORK SPACE AND ANSWER

Car Cost Choices

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	A car costs $6,400 in cash, plus $320 in tax and title fees. What is the total amount paid?	**$6,720**
2	A loan requires $2,000 down and 30 monthly payments of $180. What is the total amount paid?	**$7,400**
3	A car costs $8,100 in cash. A loan requires $1,500 down and 40 payments of $190. Find the total paid with the loan and the amount it costs above the cash price.	**$9,100 total with the loan; $1,000 above the cash price.**
4	A lease requires $1,100 upfront, 24 payments of $225, and a $350 fee when you return the car. What is the total amount paid?	**$6,850**
5	You can lease a car for $950 upfront and 36 payments of $205, with no other fees, or buy it for $8,700 cash. Which option requires less money paid over 36 months, and by how much? Do not count the car's possible sale value.	**The lease requires $370 less paid over 36 months. You return the leased car, but you own the car bought with cash.**
6	You can buy a car for $9,400 cash or pay $2,400 down and make 35 loan payments of $215. How much more does the loan cost, and what is one reason someone might still choose it?	**The loan costs $525 more. It lets the buyer keep more cash available upfront.**

PART 2 · APPLY IT

1. **Buying has the lower net cost by $1,560.** The lease costs $850 + 27 × $230 + $250 = $7,310. Buying and selling costs $7,850 - $2,100 = $5,750, which is $1,560 less.
2. **Cash purchase: $4,800 net cost. Loan: $5,640 net cost. The loan lets you keep more cash available upfront.** The cash purchase costs $10,800 - $6,000 = $4,800 net. The loan costs $1,800 + 24 × $410 - $6,000 = $5,640 net, or $840 more.

CHALLENGE

The loan and lease meet the $3,000 upfront limit; the cash purchase does not. Loan net cost: $2,600 + 24 × $450 - $8,000 = $5,400. Lease cost: $1,400 + 24 × $175 + $275 = $5,875. The loan has the lower net cost by $475.

For written advantages, accept a specific cash-flow reason, such as keeping savings available for other expenses. In comparisons with a lease, students should not treat the leased car as an asset they can sell.