THE CHALLENGE

Julia is starting college and has been offered two student loan options: a federal loan at 4.5% interest with deferred payments until after graduation, and a private loan at 6.8% interest requiring immediate partial payments. For a $10,000 loan, this difference could mean paying thousands more over the life of the loan.

How can Julia determine which loan will actually cost her less money in the long run?

Learning Objectives

- Calculate the true cost of borrowing using interest rates, fees, and loan terms.
- Compare secured and unsecured credit options to determine when each is appropriate.
- Evaluate borrowing decisions by analyzing total cost versus immediate benefits.

CORE CONCEPTS

Term	Definition
Principal	The original amount of money borrowed before interest is added.
Interest Rate	The percentage charged by a lender for borrowing money, usually expressed annually.
APR	Annual Percentage Rate; the total yearly cost of borrowing including interest and fees.
Secured Credit	A loan backed by collateral (like a car or house) that the lender can take if you default.
Unsecured Credit	A loan not backed by collateral; typically has higher interest rates due to increased lender risk.

Background: Every time you borrow money, you agree to pay back more than you received. The difference—called interest—is the cost of using someone else's money. Understanding how interest compounds over time is essential for making smart borrowing decisions. A small difference in interest rates can translate to hundreds or even thousands of dollars over the life of a loan. By comparing the **total cost** of different borrowing options, not just the monthly payment, you can make decisions that protect your long-term financial health.

APPLY IT

PART A: LOAN TYPE ANALYSIS

For each borrowing scenario, identify the best loan type and explain your reasoning.

Scenario 1: First Car Purchase

Marcus, 19, needs a reliable car for his new job. He has $2,000 saved and is considering a $12,000 used car. His bank offers auto loans at 6.5% for 48 months.

Best loan type: ____ (secured / unsecured)

Because: ____

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Scenario 2: Emergency Medical Bill

Alicia received an unexpected $3,000 medical bill. She has no savings and needs to pay within 30 days. Her credit card charges 18% APR, while a personal loan offers 12% APR over 24 months.

Best option: ____ (credit card / personal loan)

Because: ____

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Scenario 3: College Funding Gap

Tyler needs $8,000 more for tuition after scholarships. He's offered a federal student loan at 4.5% (payments deferred) or a private loan at 7.2% with a $200 origination fee.

Best option: ____ (federal / private)

Because: ____

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Hint: *Consider both the interest rate AND total cost over the life of the loan. A lower monthly payment doesn't always mean a better deal.*

PART B: TOTAL COST COMPARISON

Compare the total cost of a $10,000 loan under different scenarios. Complete the calculations.

Loan Type	Interest Rate	Term	Monthly Payment	Total Interest
Federal Student Loan	4.5%	10 years	$104	$2,480
Credit Card (min. payments)	18%	~28 years	$150*	$15,432

Auto Loan (secured)	6%	5 years	$193	$1,580
Total Cost (Principal + Interest)				

*Minimum payment decreases over time

4. How much more would you pay in total using a credit card versus a federal student loan for the same $10,000?

Show your work:

Difference: $___________

5. Why does the credit card cost so much more even though the monthly payment starts higher?

PART C: PERSONAL APPLICATION

6. Describe a situation in your future where borrowing money might be a smart decision. What would make it worthwhile?

7. What THREE factors would you evaluate before taking out any loan?

CHECK YOUR UNDERSTANDING

1. The total yearly cost of borrowing, including both interest and fees, is called the:

- ☐ A. Principal
- ☐ B. Interest rate
- ☐ C. Annual Percentage Rate (APR)
- ☐ D. Collateral value

2. Explain why secured loans typically have lower interest rates than unsecured loans.

3. Calculation: Ravi borrows $5,000 at 8% interest for 3 years. His monthly payment is $157. What is the total amount he will pay back, and how much is interest?

Show your work:

Total paid: $___________ Interest paid: $___________

4. Julia chose a 4.5% federal loan over a 6.8% private loan for her $10,000 education expense. If both loans have 10-year terms, approximately how much did she save by choosing the federal option?

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5. Reflection: Think about someone you know who has borrowed money (for a car, house, or education). Based on what you learned today, what advice would you give them about evaluating borrowing options? What questions should they ask before signing?
