

NAME: _____

How Much Does It *Really* Cost?

Part A: Simple Interest Rate, Time

DEFAULT SETTINGS		EXPLORATION					
Principal							
Rate							
Time	years months						
Total Loan Amount							
Total Interest							

Part B: Compound Interest Rate, Compounding Period, Time

DEFAULT SETTINGS		EXPLORATION					
Loan Amount							
Loan Term	years months						
Interest Rate							
Compound							
Total Loan Amount							
Total Interest							

Part A and B: Reflection Questions

Variable	Change in variable	Effect on loan/costs (Circle one)
Simple interest rate	increase	increase / decrease / remain the same
Compound interest rate	increase	increase / decrease / remain the same
Time or loan term	increase	increase / decrease / remain the same
Compounding periods	increase in frequency	increase / decrease / remain the same

1. Would you prefer a shorter or longer loan term? Why?

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2. Comparing the effects of simple interest and compound interest, which would you prefer when you choose a loan? Why?

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3. Would you prefer a lower or higher interest rate for a loan? Why?

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4. Would you prefer an interest rate that compounds monthly or quarterly? Why?

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Part C: Down Payment

DEFAULT SETTINGS	EXPLORATION
Auto Price	
Loan Term	months
Interest Rate	
Down Payment	
Total Cost	
Total Loan Interest	

Part C: Reflection Question

5. Would you prefer to pay a smaller or larger down payment? Why?

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How Much Does It *Really* Cost?

Suggested Answers

Variable	Change in variable	Effect on loan/costs (Circle one)
Simple interest rate	increase	increase / decrease / remain the same
Compound interest rate	increase	increase / decrease / remain the same
Time or loan term	increase	increase / decrease / remain the same
Compounding periods	increase in frequency	increase / decrease / remain the same

1. Would you prefer a shorter or longer loan term? Why?

Student explanations will vary. Generally, a shorter loan term is preferred. A longer length of borrowing time leads to more interest payments, which means a higher total loan amount at maturity. Of course, the loan term may depend on other factors that are outside of our individual control.

2. Comparing the effects of simple interest and compound interest, which would you prefer when you choose a loan? Why?

Student explanations will vary. Comparing Parts A and B, given the same interest rate percentage, an interest rate that compounds leads to a higher total loan amount and interest payments. It is always wise to choose a simple interest rate, *if* the interest rate percentages are the same.

3. Would you prefer a lower or higher interest rate for a loan? Why?

Student explanations will vary. Lower interest rate is preferred. A higher interest rate leads to higher interest payments and a higher total loan amount due at maturity.

4. Would you prefer an interest rate that compounds monthly or quarterly? Why?

Student explanations will vary. An interest rate that compounds quarterly is preferred over monthly. Interest rates that compound more frequently result in higher interest payments, which leads to a higher total loan amount due at maturity.

5. Would you prefer to pay a smaller or larger down payment? Why?

Student explanations will vary. A larger down payment reduces interest payments, which lowers the total loan amount. However, it is not always easy to save enough money for a large down payment. Some people pay a smaller down payment in order to obtain an item sooner, while understanding that their total loan amount will be higher at maturity. Everyone must weigh the pro's and con's when deciding the amount of down payment.