

Activity 7.1

Auto Loans

Name _____ Date _____ Hour _____

Introduction

Many people finance or apply for loans for big ticket items such as homes and cars because it is difficult to save up such large amounts of money. Buying a car and entering into a financing agreement with a financial institution are serious matters that require thought and planning in order to buy the best car that your budget will allow.

First-time auto buyers are sometimes surprised to find that the cost of an automobile is more than the sticker price at the auto dealership. There is sales tax, excise tax, tag, and title. In Oklahoma, a standard title is \$11 and registration for the first four years is about \$91 per year.

Oklahoma assesses a vehicle excise tax when you buy a car. In 2011, the tax was:

- New Vehicle: 3.25% of the purchase price (or taxable value, if different)
- Used Vehicle: \$20.00 on the 1st \$1500.00 of value + 3.25% of the remainder

It's often recommended to plan on an auto loan that is between 10 and 13 percent of your monthly net or take home pay.

Monthly Payment Calculation Formula

1. Financed amount x interest rate = annual interest cost
2. Annual interest cost x number of years for loan = total interest paid
3. Financed amount + total interest paid = total loan financed
4. Total loan financed / (divided by) the number of months in the loan = monthly loan payment
5. Total loan financed + down payment = Total cost of car

Directions

Complete the following problems.

1. Paul is looking at three different vehicles that he would like to buy. He has \$2500 saved to apply as a down payment, but he will have to finance the rest. He has loan quotes from three financial institutions. His monthly net income is \$3080. The sales tax will be 8.5%.

Vehicles

2011 Hyundai Elantra: \$18,765 (new car)
2009 Honda Civic: \$17,491 (2-year-old car)
2007 Toyota 4 Runner: \$20,895 (4-year-old car)

Financing Options

- **Smith Financial Group:** 36 month (new 4.52; used 6.51%); 48 month (new 5.2%; used 6.9%); 60 month (new 5.52%; used 7.25%)
- **City Bank:** 36 month (new 4.19%; used 4.39%); 48 month term (new 4.09%; used 4.29%) 60 month (new or used 3.99%)
- **Oklahoma State Credit Union:** 36 month (new or used-3.74%); 48 month (new 3.74%; used 4.49%); 60 month (new 4.0%, used 5.25%)

Figure out what Paul can afford in monthly payments and which vehicles and financing options fit into his budget.

2. Find three vehicles that you would like to own. Get the price of each one. Find the auto loan rates at three different financial institutions. And finally, figure out what you can afford in monthly payments. Summarize what research you've done and what you would decide if you were buying a car and why.

Activity 7.2

The Costs of Owning an Automobile

Name _____ Date _____ Hour _____

Introduction

Auto loan or auto lease payments are only part of the cost of owning a car. There are also operating and ownership costs. The American Automobile Association estimates that it costs \$6750 a year to drive a small sedan approximately 15,000 miles. This is in addition to the principal in the payments you make for an auto loan. These operating and owner costs include routine maintenance, insurance, license, registration, taxes, depreciation, and finance charges on your loan amount.

Directions

Choose your car or a family car and calculate the **annual** costs of owning the car by completing the following table:

	Annual Cost Per Mile
<u>Operating Costs</u>	
gas per mile*	_____
total miles driven	X _____
total gas	= _____
maintenance (tune-ups, repairs)	+ _____
tires	+ _____
Total operating costs	= _____
<u>Ownership Costs</u>	
depreciation**	_____
insurance	+ _____
taxes	+ _____
license and registration	+ _____
finance charges (auto loans)	+ _____
Total ownership costs	= _____
other costs (washing, accessories, etc.)	_____
Total driving costs (total operating costs + total ownership costs + other costs)	
Total driving costs / total miles driven = cost per mile	
_____ / _____ = _____	

* Figuring gas per mile: Write down the odometer reading when you have a full tank of gasoline. Each time you fill up, write down the number of gallons, how much you pay and the odometer reading. Do this several times to get an average. Add up the gallons of gas and the total cost. Subtract the last odometer reading from the first odometer reading. Divide the mileage by the number of gallons to get the gas per mile (dividing the cost by the mileage will tell you the cost of gas per mile)

**Depreciation is the difference in what you pay for a car and its trade-in value in five years

Activity 7.3

Automotive Repair Facilities

Name _____ Date _____ Hour _____

Introduction

Keeping an automobile in good driving condition helps it last longer and provides a better ride in terms of safety, cost, and performance. Auto maintenance includes following the manufacturer’s recommendations for routine service, such as oil changes every 3,000 to 5,000 miles. Certain items also wear out and need to be replaced, such as air filters, belts, hoses, tires, and brake parts.

Directions

- Part 1:** Make a list of ten things to look for in choosing an automotive repair facility, such as certification, endorsements, reputation, convenience, etc.
- Part 2:** Choose three repair facilities in your community—a dealership, a chain, and an independent, if available. Evaluate these facilities according to the criteria you set.

AUTOMOTIVE REPAIR FACILITY EVALUATION			
Evaluation criteria	Repair facility #1	Repair facility #2	Repair facility #3
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			

What did you learn?

What facility would you choose and why?

Activity 7.4

Buying vs. Leasing an Automobile

Name _____ Date _____ Hour _____

Introduction

Approximately 80 percent of the population purchases or finances a car; the other 20 percent prefers to lease a car. There are advantages or disadvantages to each, but what is the actual cost difference? It's not just the monthly payment, but also the capitalized cost or lease price that makes a difference.

Directions

Use the car loan calculator at www.thecalculatorsite.com to answer the questions below.

1. You are interested in a used car, not more than three years old, with under 40,000 miles. You've found a two-year-old 4-door sedan for \$16,921 at one dealer. Your financial institution has used car loans for qualifying buyers for 36 months at 4.39%. Another dealer is leasing one-year-old 4-door sedans for \$1999 at signing and then \$285 a month for 36 months.

You have \$2,000 saved to apply to a car purchase or lease. Use that to make a down payment. Compare the costs of financing a car vs. leasing it. What are the total amounts to buy or lease these cars?

What if you finance for 48 months at 4.29%? _____ 60 months at 3.99%? _____

A typical auto lease includes 12,000 to 15,000 miles per year. If you exceed this amount, you often have to pay extra, such as \$0.15 per mile at the end of the lease. Looking at the above example, what if you drove the leased car from Oklahoma to Florida for one spring break, and Oklahoma to Chicago to visit relatives, leading to 38,725 miles after three years. Your lease agreement allows for 12,000 miles a year, so that means you're going to have to pay \$0.15 per mile after that amount. What is the additional mileage cost?

2. When you finance a car, the rate of interest on your auto loan is the annual percentage rate (APR). A lease contract doesn't include an APR; instead, interest is the money factor or lease factor. The lease factor is usually calculated by dividing an APR by 2400 ($APR / 2400 = \text{money factor}$). If you know the lease factor, you can multiply it by 2400 to convert it to an APR so that you can compare it with auto loan APR's.

If you are comparing financing and leasing and you have a loan APR of 4.9%, what would be the lease factor?

What is the better deal in terms of interest, an APR of 5.5% or a lease factor of 0.00177?

3. All automobiles lose value over time; this loss in value is known as depreciation, most of which occurs in the first year. When you lease a car, you return the car at the end of the leasing period. In signing the contract, you are agreeing to pay the residual value or the amount the auto was worth at the beginning of the lease period less its worth at the end of the lease period. A small SUV has an MSRP (manufacturer's suggested retail price) of \$32,500, and it's expected to depreciate 25% in the first year, 15% in the second year, and 10% in the third year.

How much is it worth after Year 1? _____ Year 2? _____ Year 3? _____