

Area –Consumer and Family Resources
Scenario – Figuring Transportation Costs

Standards

SD FACS Standard

FCS 7.1.8

Apply consumer information for acquiring and maintaining transportation to meet the needs of individuals and family members.

SD Mathematics Standards

Math 9-12.N.2.1

Add, subtract, multiply, and divide real numbers including integral exponents.

What will you do?

You will react to a given scenario calculating yearly, monthly, and per mile cost of owning and operating a vehicle.

What is the scenario?

Kevin Harper has a used 2002 Dodge Neon to use for traveling back and forth to college. He has estimated that he would probably put 30,000 miles on the car in one year’s time. His Neon gets great gas mileage – 32 miles per gallon. He also estimates that he will need to replace two tires per year. He likes to maintain his vehicle with an oil and lubrication tune up every 2000 miles that he travels. The chart below gives you information for fixed and flexible expenses. With this information calculate how much money Kevin will need to set aside in his budget for vehicle maintenance. Do the research for current prices in your area.

Fixed Transportation Expenses	Cost per year	Average Cost per month
Installment loan payment	\$2155.57	
Insurance	\$768.00	
License fees (includes driver’s license, license tags, inspection)	\$45.00	
Other (campus parking)	\$50.00	
Total of Fixed Expenses		
Flexible Expenses	Cost per year	Average Cost per Month
Gasoline (30,000 miles, 32 miles per		

gallon, and current gas price		
Oil (Change oil and filter every 3000 miles)		
Tires (Estimate two new tires per year)		
Maintenance (parts, repairs, tune-ups)	\$250.00	
Total of Flexible Expenses(Yearly)		
Total of Fixed Expenses(Yearly)		
Total of Expenses(Yearly)		
Calculate the cost of owning and operating a vehicle per driven mile		

*Depreciation is not included as an expense due to variations for age and type of vehicle.

How will you do this?

- You will study the scenario given.
- You will research your local sources for flexible expenses.

What will you need?

A calculator

How will you be evaluated?

Charted results

*The instructor may decide if they wish to include the following for the student's use.

It may be used for a guide to solving the problems.

1. Monthly expenses
Total yearly cost /by 12
2. Gasoline expenses per year
Total number of miles driven /miles per gallon of gasoline X average cost of gasoline= cost of gasoline per year.
3. Total for oil and lube jobs per year
Total number of miles driven/3000 X average cost of oil and lube = cost of oil and lube per year.
4. Total for new tires
Cost of one new tire X 2 = cost of two new tires per year.
5. Cost of owning and operating a vehicle per driven mile
Total yearly expenses/total miles driven = cost per mile

Adapted from *Skills for Consumer Success*, Thomson-Southwestern
By Carol Lingemann, Ethan Public Schools, SD 2005