Calculating Your True Driving Costs

In this lab, we will estimate how much it costs you to operate your vehicle on a per-day, per-mile and per-year basis.

Follow these steps to acquire and analyze some data about your driving expenses.

1. You must start with a full tank of gas, so go to the gas station and fill your tank up all the way.
   While you’re still at the gas station, write down the current miles on your car and the date.
   Start Mileage = ____________.
   Start Date = ____________.

2. Drive until your tank is at least ½ empty. Go back to the gas station and refill your gas tank until it is completely full again. While still at the gas station, write down how many gallons you pumped, how much it cost you, the end miles on your odometer and the date.
   Gallons to Refill = ____________.
   Cost to Refill = ____________.
   End Mileage = ____________.
   End Date = ____________.

3. Calculate your Miles Driven by subtracting your Start Mileage from your End Mileage.
   Miles Driven = ____________.
   Calculate your Days Driven by counting the number of days between your two refills.
   Days Driven = ____________.

4. Calculate your Average Miles per Gallon by dividing your Miles Driven by the number of Gallons to Refill. Compare this number to the manufacturer’s claimed mileage in your discussion.
   Average Miles per Gallon = ____________.

5. Calculate your Gasoline-Only Cost per Mile by dividing your Cost to Refill by your Miles Driven.
   Gasoline-Only Cost per Mile = ____________.

6. Calculate your Gasoline-Only Cost per Day by dividing your Cost to Refill by the number of Days Driven.
   Gasoline-Only Cost per Day = ____________.

7. Multiply #6 by 365 to get your average Annual Gasoline Cost.
   Annual Gasoline Cost = ____________.

8. Calculate your total Annual Insurance payments (careful - many insurance companies bill using 3 or 6 months periods)
   Annual Insurance = ____________.

9. Calculate your total Annual Car Payment (if you have one).
   Annual Car Payments = ____________.

10. Estimate your Average Annual Maintenance Costs. Be sure to include the cost of things that you pay for only once every few years (brakes, tires, etc). Also, include the annual cost of registering your vehicle.
    Average Annual Maintenance Costs = ____________.

11. Add up your answers to 8, 9 and 10 to find your Annual Non-Gasoline Costs.
    Annual Non-Gasoline Costs = ____________.
12. Add # 7 to #11 to get your total annual driving costs.
   Total Annual Driving Costs = ____________.

13. Calculate your Average Daily Miles by dividing your Miles Driven from #3 by the Days Driven from #3.
   Average Daily Miles = ____________.

14. Multiply #13 by 365 to get your Average Annual Miles driven.
   Average Annual Miles = ____________.

15. Calculate your Average Daily Driving Cost by dividing your Total Annual Driving Costs from # 12 by 365.
   Average Daily Driving cost = ____________.

16. Calculate your Average Cost per Mile by dividing your Total Annual Driving Costs from # 12 by your Average Annual Miles from #14.
   Average Cost per Mile = ____________.

For your report, please write an intelligent analysis and discussion of your driving costs. Include the following information at the beginning of your report:

*Your car (or motorcycle's) manufacturer, model, year and engine size (in liters).
*The advertised mileage (MPG) ratings for your car for both highway and city driving (you can look this up on the internet).

Here are some questions you might want to address in your report:
*How does your mileage compare to the manufacturer's claimed mileage? What factors might account for any differences?
*Do your numbers seem high or low to you? Were you surprised at the actual daily costs?
*Are there special conditions that affect your driving costs (you live in Brooksville and commute to Tampa for school, you do mostly stop and go driving, you have an extra large vehicle or "hot rod" because you need or want one, you do most of the maintenance on your car, etc.)
*How much does the price of gasoline affect your total driving costs? How about your average cost per mile?
*How would your results differ if you drove substantially more or fewer miles over the course of a year?
*Was this a realistic sampling of your typical driving behavior?
*What are some things you could realistically do to reduce your driving costs?
*What did you learn from this exercise?
*Do you think it was a good learning experience?
*Any other ideas that this exercise stimulated in your cranial circuitry?