

Go Buy Yourself A Car!



One of the cool parts of aging is when you get your license, but it's pretty useless if you don't actually have a CAR! So it's time to start looking for one, but we're going to use the following scenario.

- 1) You have no money saved for a down payment
- 2) Your parents are NOT giving you a car or money to pay for one
- 3) Your parents WILL co-sign for a car loan, and are not concerned about how much you're actually spending (.....which is likely a total lie, but run with it!)
- 4) You work part time at a minimum wage job

Step 1 – Find a car

Ok, now that the stage is set let's start looking. First and foremost, this DOESN'T HAVE TO BE REALISTIC, however many of you buying a car at some point in the near future so making it realistic will give you a better sense of what you'll be paying for in the future. Regardless of realism, let's follow these first steps:

- 1) Go online and look for a vehicle. One of the more popular used car sites is autotrader.ca but you can look in a number of different spots (e.g. kijiji, craigslist, the dreaded newspaper!). Don't forget to look at car lots too, they always have a nice selection of used cars with a price you can work with 😊.
- 2) PRINT OFF THE LISTING FOR YOUR CAR! If it's from a newspaper, just bring me the cut out of the listing, but otherwise print off the listing for your car and make sure you including it in your assignment.

Step 2 – Find a loan

Perfect, easy part is done. Now it's time to figure out how to pay for it. For THAT, the only answer you currently have is CAR LOAN. Follow these steps:

- 3) You have a bank account, which means your bank knows a little bit about you. Why not take a look online and see what your current bank offers for car loans. You can also look up personal loans which may have a better interest rate, but likely the bank won't give this to you at your current credit rating (but hey, your parents offered to co-sign in this scenario!). If you don't like your bank's offers, look elsewhere! Car dealerships offer loans but typically their interest rates suck so be careful!
- 4) PRINT OFF THE CAR LOAN RATE YOU PLAN ON USING. Whatever you find and are happy with, make sure you print it off so that I can see it exists! It should clearly show the interest rate and the term of the car loan that it's offered for (anywhere from 4 years to 7 years typically).

Step 3 – Find your payments

Alright, now you're getting somewhere! Time to figure out what your payment schedule will be. For that, you'll need the price of your car, the interest rate with compounding rate, the term of your car loan, and the number of payments you'd like to make (monthly, semi-monthly, weekly, bi-weekly, daily?!?!?!). This calculation is exactly the same as previous calculations for loans so use that TVM Solver of yours and see how much you'd pay! BE SURE TO SHOW YOUR CALCULATIONS!

- 5) Write out the calculations to show what your payment will be to take the car loan down to ZERO by the end

Step 4 – Find your interest

- 6) Calculate how much interest you paid over the course of your loan.

Step 4 – Add insurance, gas, and maintenance.

Oddly enough the cost of a car doesn't stop with actually buying the car. You've got maintenance, gas, and insurance to deal with as well, which can really add up! We need to do the following:

- 6) Let's imagine the best you can do is \$2500 per year for insurance, \$50 a month for maintenance, and 2 tanks of gas per month. Add these into the total cost of your car (remember, the ACTUAL price of your car needs to include the interest you paid).

Step 5 – Oh oh....your car depreciates!

Sadly cars don't tend to retain their value, so it's time to find out what your car will be worth by the end of the car loan term! Follow these steps:

- 7) Go online and see if you can find a depreciation rate for your vehicle specifically, or just cars in general. **PRINT OFF THE RATE AND ATTACH IT TO YOUR ASSIGNMENT!**
- 8) Calculate the projected price of your car based on this depreciation rate. In addition, calculate the amount lost on the car due to this drop in value.

Step 5 – Now find out you could have saved

It's awesome that you had a car, but let's find out how much money you could have had in the bank over the course of your car loan.

- 9) We're going to turn this around. Now start with a PV of zero, but you are going to add in payments equal to the amount you were spending on your car (look at the value from number 6 for this). Let's say, instead of purchasing the car, you put this money into a tax-free savings account (interest rate of 3.0% compounding monthly) for the entire length of term for the car loan. Calculate how much this INVESTMENT would be worth!

Step 6 – Time to compare

So you've gone through the process of buying a car, and comparing this amount to an investment where you just took the money you would have spent and put it into a savings account. Now it's time to decide whether it was really worth it at all!

- 10) You know how much the car would cost, and you know how much you would have saved otherwise, so discuss whether or not you'd still buy the car and justify your decision with reasoning (this should be a paragraph....easily).

DUE DATE: _____