Name:

## Assignment One-Choosing a Vehicle

1. Mike has a monthly net income of $\$ 550$. What will he be able to afford for a vehicle? Why?
2. What is the maximum debt repayment that is recommended for the following monthly net incomes?
a) $\$ 1,250$
b) $\$ 3,250$
c) $\$ 980$
3. What is the minimum income that is recommended for each of the following debts?
a) $\$ 350$ a month
b) $\$ 850$ a month
c) $\$ 1200$ a month
4. A new motorcycle is bought from a MB dealer for $\$ 27480$. What is the total price of the motorcycle including taxes?
5. A used truck is bought privately in Manitoba for $\$ 25$ 500. What are the taxes on this purchase? What is the total paid?
6. A new car is bought from a dealer in Manitoba for $\$ 32500$. What are the taxes? What is the total paid?

## Assignment Two-Maintaining a Vehicle

1. Calculate the cost of repairs if you buy two wiper blades at $\$ 10$ each, 5 L of oil for $\$ 3.90 / \mathrm{L}$ and 4 shocks for a total of $\$ 250.99$. The shop time to do the repairs is 2.1 hours. The shop rate is $\$ 110$ an hour. Find the total cost of the material and labour including applicable taxes.
2. A car needs to have regular maintenance, and Bab has a compact, fourcylinder car. The mechanic charges $\$ 59 / \mathrm{hr}$ to work on the car. Find the total of cost of repair, include parts, labour and taxes.
a) Four litres of oil at $\$ 4.25 / \mathrm{L}$, one oil filter for $\$ 5.60$, and an air filter for $\$ 14.50$. Installation time is 0.6 hours
b) A fuel filter for $\$ 21$, installation time 0.3 hours
c) Two fan belts for $\$ 90.98$ each and two headlights for $\$ 28.69$ each, installation time is 2.0 hours.
d) The cooling system needs to be flushed. It will cost $\$ 49.99$ including labour. Then antifreeze will need to be added. It costs $\$ 7.97$ for a 4 L jug and eight litres are needed.
3. Lindsay takes her car to a Manitoba car dealership for servicing. The dealership charges $\$ 150$ per hour for labour. The following items were replaced: four (4) spark plugs for $\$ 2.25$ each, one (1) air filter for $\$ 12.50$ and one (1) headlight for $\$ 30$. The job took 1.25 hours to complete.

Calculate the total cost of repairs including taxes.

## Assignment Three-Fuel Economy

## Concepts

1. What is fuel economy defined as?

## Applications

2. Find the total cost for 90 litres of gas at a cost of 121 cents per litre.
3. Determine the distance travelled using the following odometer readings given:
a. Initial reading: 039287.6 Final reading: 040324.3
b. Initial reading: 123914.5 Final reading: 124721.3
4. Determine the fuel economy for a vehicle that has an initial odometer reading of 071416 and a final reading of 071739 , and the litres of fuel used is 57.6 L .
5. A pick-up truck travels 92 km on 10L of gasoline when driven on a smooth, paved road. The truck is only able to travel 78 km on the same amount of gasoline when driven on a gravel road.
a) Determine the fuel economy of the truck on the paved road.
b) Determine the fuel economy of the truck on the gravel road.
6. Francis traveled a total of 500 km in the city and 1200 km on the highway. His car has a fuel economy of $11.9 \mathrm{~L} / 100 \mathrm{~km}$ in the city, and $7.5 \mathrm{~L} / 100 \mathrm{~km}$ on the highway. Gasoline costs 60.0 cents per litre. Calculate the number of litres of fuel used, and the cost for the fuel.

## Assignment Four-Insuring a Vehicle

FOR ALL THE CALCULATIONS BELOW, USE THE SCHOOL POSTAL CODE. (R1A 2C8) USE THE MPI WEBSITE. DO NOT MAKE PRINT THE CALCULATIONS. TRANSFER THE INFORMATION ONTO YOUR ANSWER SHEET.

1. You win a contest and decide to buy a 2004 Chevy Corvette Z06. You decide to take a $\$ 100$ deductible and $\$ 2000000$ in third party liability. You wish to pay in 12 monthly installments. You are insuring for pleasure use only. You currently have 1 merit on your driver's license.
a) How much will the insurance cost each month?
b) What is the total per year?
2. You graduate from Selkirk and decide to insure the same car as in question 1. Now you have a full time job at Walmart and you plan to drive the Corvette to work every day.
a) How much will the insurance cost now each month?
b) Each year?
c) What is the plate charge?
d) What is the interest and administration fee?
e) You change your mind and decide to pay the insurance in one lump sum. Calculate the insurance cost for pleasure use. How much do you save by paying in full?
3. This summer, you decide to start a small lawn care business. You need a truck to transport your equipment to your job sites. You find a good deal on a 2000 Ford F150 XL. The truck is 4 -wheel drive. You decide to register with a $\$ 200$ deductible and $\$ 2$ 000000 in third party liability. You have a good driving record so you have 2 merits on your license. Since you need to have a reliable business, you opt to take out an optional loss of use insurance (level 2). You will make payments quarterly.
a) Calculate the cost of each payment.
b) Calculate the yearly cost as well.
4. Your friend is selling her 2000 Honda Civic DX hatchback. You've always loved the car so you offer to buy it. You can only afford to buy it if your insurance payments are less than $\$ 100$ per month. Calculate your monthly insurance payments based on pleasure use, a $\$ 300$ deductible and $\$ 1000000$ in third party liability. You just got your license so you do not have any merits. The car does come with a Honda immobilizer against theat. Can you afford to buy the car? (What are the monthly payments?)
5. Your Mom, who has a great driving record (5 merits), offers to register the car in question 4 for you. Can you afford the payments now? What would the payments be?

## Assignment Five-Buying New

## Practice Questions:

1. Find the sticker price for the following coupe. The base price is $\$ 14,765$. Its optional equipment package consists of a preferred equipment package costing $\$ 1,730$, a three-speed automatic transmission costing $\$ 765$, and AM/FM stereo with CD player costing $\$ 350$, a 15 -inch steering wheel costing $\$ 170$, power mirrors costing $\$ 150$, and a tachometer costing $\$ 40$. In addition, there is an air tax of $\$ 100$ and a freight charge of $\$ 760$.
2. Sheila lives in Manitoba. She buys a light duty Nissan truck with a base price of $\$ 17,218$. She gets an option package worth $\$ 2,490$ plus an optional stereo system for $\$ 665$. There is a freight charge of $\$ 830$ and a federal tax of $\$ 100$ on the air-conditioning unit. How much will she pay for this car including taxes?
3. Sue, who lives in Northern Manitoba, wants a Tracker. The base price is $\$ 19,796$. She would like power windows and power locks for an extra $\$ 300$ and $\$ 285$ respectively. There is a freight charge of $10 \%$ of the base price. She does not require air conditioning. How much will she pay for the vehicle?
4. Andy lives in Manitoba and decides to buy a Mustang two-door convertible. He pays the base price of $\$ 24673$ and takes an option package worth $\$ 2614$. He adds on the automatic transmission for an extra $\$ 695$. There is a freight charge of $\$ 795$ and the options package he selects has air conditioning. Andy receives a trade-in allowance of $\$ 4500$ for his old car. How much will he pay?
5. You are buying a new truck with a base price of $\$ 19400$. You would like to have a stereo system. Your dealer indicates that it is available in the Premier Equipment Package which includes the stereo, automatic transmission, power antenna, and rust protection. This package costs and additional \$2300. The documentation fee is $\$ 150$ and you have an old truck with a trade-in value of $\$ 5700$. How much will you pay in total?

## Assignment Six-Depreciation

1. Determine the resale value of the following new vehicles for the years and depreciation rates given.
a) $\$ 17,000$ Vibe at the end of three years (first year $20 \%, 15 \%$ a year thereafter)
b) $\$ 16,408$ Cavalier at the end of two years (first year $25 \%, 15 \%$ a year thereafter)
2. Determine the total depreciation for each of the vehicles in question 1.
3. Determine the resale value of the following used vehicles for the years and depreciation rates given.
a) $\$ 6,000$ Nissan light truck three years after purchase ( $10 \%$ depreciation each year)
b) $\$ 3,500$ Chevy Impala two years after purchase ( $15 \%$ depreciation each year)

## Assignment Seven-Buying Used

## Concepts

1. What are the advantages and disadvantages of buying a used vehicle privately rather than through a dealer?

## Applications

2. Harry has found a car in Churchill, MB that he likes and wants to buy through a private sale. The price of the car is $\$ 2,495$. Harry's friend examines the car and recommends that Harry install a new battery for $\$ 129$ and get a tune-up for a cost of $\$ 85$. The safety check will cost $\$ 40$ plus GST. The book value for this car is $\$ 2,200$. How much will this car cost Harry?
3. Calculate the total purchase price of a used truck listed at $\$ 7,450$ at a licensed automobile dealership of Beausejour, MB.
4. Calculate the total purchase price of a used vehicle sold privately in Churchill, MB. The vendor is asking $\$ 3,600$ for the vehicle. A lien search costs $\$ 26$, and a diagnostic test costs $\$ 35$. The mechanic reports that the car needs the following repairs: engine work, $\$ 50$; electrical, $\$ 275$; suspension, $\$ 250$; exhaust, $\$ 170$; and tires, $\$ 680$. A safety check costs $\$ 40$. The book value of the vehicle is $\$ 3,775$.

## Assignment Eight-Leasing a Vehicle

1. A lease vehicle in Flin Flon, MB is priced at $\$ 35,500$. The residual value rate is $70 \%$ after four years. What is the residual value including taxes?
2. A government-leased vehicle in Stonewall, MB has a residual value of $\$ 29,552.77$ (taxes included) and total lease payment of $\$ 16,545.15$ (taxes included). What will be the total cost of purchasing this leased vehicle after the lease term ends?
3. A $4 \times 4$ pickup in The Pas, MB, leases for $\$ 329$ a month plus taxes for a lease term of 30 months. A down payment of $\$ 3,500$ is required. The sale price is $\$ 30,050$ and the guaranteed residual value rate is $75 \%$.
a) Calculate the total lease monthly payment.
b) Calculate the total lease payment over the term of the lease.
c) Calculate the guaranteed residual value.
d) Calculate the total cost if the vehicle is purchased outright at the end of the lease.
e) Calculate the difference between the total cost if the vehicle is purchased outright at the end of the lease and the cost of the vehicle if it is purchased outright at time of purchase.
4. A vehicle in Steinbach, MB has the following lease agreement:

- Down payment \$3000
- Lease Payment \$250 a month
- Lease term 24 months
- Security deposit \$500
a) Calculate the total lease monthly payment.
b) Calculate the total lease payment over the term of the lease.
c) Calculate the amount that must be paid at the start of the lease.


## Assignment Nine-Taking out a Vehicle Loan

1. You wish to take a loan for $\$ 8500$ to purchase a used car. Your monthly payment is $\$ 379$ for a two year loan. Calculate the total paid and the finance charge.
2. Emily wishes to take a loan for $\$ 25535.88$ to purchase a new car. Her monthly payment is $\$ 800$ for a three year loan. Calculate the total paid and the finance charge.
3. Phil wishes to take a loan for $\$ 12680.25$ to purchase a used car. His monthly payment is $\$ 306.60$ for a four year loan. Calculate the total paid and the finance charge.
4. Matt is able to make a down payment of $\$ 3000$ on a new vehicle he purchases for $\$ 14500$. In order to finance the remaining amount, he takes out a four year vehicle loan from the dealership at a fixed interest rate of $4.0 \%$ annually.
a. Calculate the principle for the loan
b. Calculate his monthly payment for the loan
c. Calculate the total paid for the loan
d. Calculate the finance charge for the loan
e. Calculate the total he pays for the vehicle
5. Sarah is able to make a down payment of $\$ 6000$ on a new automobile she purchases for $\$ 35$ 265.40. In order to finance the remaining amount, she takes out the dealership's three year car loan at a fixed interest rate of 3.75\% annually.
a. Calculate the principle for the loan
b. Calculate his monthly payment for the loan
c. Calculate the total paid for the loan
d. Calculate the finance charge for the loan
e. Calculate the total he pays for the vehicle
