

Part I: Place the letter of the term matching the definition on the blank provided.

(17 marks)

- | | |
|--|-------------------------|
| _____ When expenses and revenue are equal | (A) Depreciation |
| _____ The value that an item loses over time. | (B) Extended Warranty |
| _____ The money spent running a business. | (C) Profit |
| _____ Costs that do not change from month to month. | (D) Loss |
| _____ How long a dealer decides you can rent/lease a vehicle for | (E) Variable Costs |
| _____ the payment you make on the 15 th and 30 th of every month towards the purchase of a vehicle | (F) Net Income |
| _____ When a company's expenses are more than its revenue. | (G) Residual Value |
| _____ A company's total profit or loss after subtracting expenses from revenue. | (H) Expenses |
| _____ When a company's revenues are more than its expenses. | (I) Fixed Costs |
| _____ The estimated value of the car at the end of the lease. | (J) Revenue |
| _____ Income from normal business activities, usually the sale of goods and/or services. | (K) Break-even Point |
| _____ Costs that change in amount or in how frequently they are paid. | (L) Lease Term |
| _____ the maximum amount of kilometers you can drive yearly on a lease without incurring a penalty | (M) Kilometer Allowance |
| _____ # of monthly payments in 6 years | (N) Biweekly Payment |
| _____ The amount of money a financial institution will make of you after you pay back a loan. | (O) Cost of Borrowing |
| _____ # of bi-weekly payments in 4 years | (P) 72 |
| | (Q) 104 |

Part II:

1. Using www.vmrCanada.com And <http://www4.bmo.com/popup/loans/Calculator.html> to assist you in your mathematics computations.

a) Determine the value of a four wheel drive 2014 Toyota Tacoma truck that has leather seats, sunroof, alloy rims with 77,000 km on it. (2 marks)

Wholesale: _____ Retail: _____

b) Determine the cost of the truck in NL with taxes. (2 marks)

_____ x _____ = _____

c) You decide to take out a loan for 6 years at 5.5% interest per year. Using www.bmo4.com, show all workings for the following: (10 marks)

Monthly Payment:

Bi-weekly payment:

Total Paid back to the bank
(Under Monthly payments)

Total Paid back to the Bank:
(Under Bi-weekly payments)

Cost of borrowing:

Cost of borrowing

d) Which payment plan should be cheaper and why? (2 marks)

Math 3202 Unit 4 Assignment**Name:** _____

2. A new Ford F-150 has a sticker price of \$39,199. This price does not include the following fees:

PDI fee = \$2250 Extra Options Package = \$5200 License fee = \$140

- a) Compute the net price of the vehicle including taxes. (For PDI and License fee the taxes do not apply!) (5 marks)
- b) Determine the monthly payment for 6 years at 5.2% interest. (2 marks)
- c) Determine how much it will cost for you to finance this vehicle over 6 years using the monthly payment plan. (5 marks)
3. You decided to lease a car for \$245 monthly for 4 years. The down payment required was \$2000. If you go beyond 20,000 km per year you have to pay a penalty of 20 cents per kilometer.

Determine the total amount you will have to pay the dealer to lease the vehicle over the four year period considering:

- a) total monthly payments: (4 marks)
- b) down payment: (2 marks)
- c) You plan on driving 102,000 km over the four year lease (Compute the km penalty) (6 marks)

Total = _____(total monthly payments) + _____ (deposit) + _____ = _____

4. Shawn is buying a new truck. Detail of the pricing are in the table.

Base Price	\$38 650
Extra Options Package	\$2 500
Freight and PDI	\$1 400

- a) What is the total cost of the truck, including taxes (13%)? (Taxes do not apply to Freight and PDI!) *(5 marks)*
- b) If Shawn’s monthly payment is \$725.51 for 6 years, how much will Shawn have paid for the truck when it is paid off? *(4 marks)*
5. Karen just bought car. She plans on driving 1500 km per month. She is given the option to purchase a “Maintenance Package” for \$1050, which will cover the maintenance for 2 years.

Maintenance	Schedule	Cost (Plus taxes)
Oil Change	6000 km	\$129.99
Air Filter	6000 km	\$15.99
Tire Rotation	once yearly	\$59.99

- a) Calculate the cost of oil and air filter changes over the two year period. (Taxes!) *(8 marks)*
- b) Calculate the cost of tire rotations over the two year period. *(3 marks)*

c) Calculate the total cost of A and B. (2 marks)

d) Should you buy the “Maintenance Package” offered by the dealer? Why or why not? (2 marks)

e) If this vehicle uses, 4.5L/40 km, determine how much it would cost for gas for one year if your drive 1500 km per month. (Use the fact that gas is now \$1.16/Liter). (6 marks)

6. Sarah charges \$55.00 for each print sold in her art Studio.

a) She sold 40 prints in the month of February. What is her total revenue for the month? (2 marks)

Revenue = _____ x _____ = _____

b) For each print she makes she endures an expense, which totals \$40.00. Determine her total expenses for the 40 prints that were sold. (2 marks)

Expenses = _____ x _____ = _____

c) How many prints did she have to sell in order to break even? (What is her break even point? *(Round the number of prints here)*) (2 marks)

7. The table shows the annual revenue and expenses for an outdoor skating rink.

Month	Revenue	Expenses
Jan	\$7700	\$5250
Feb	\$8160	\$5200
Mar	\$8590	\$5500
Apr	\$0	\$0
May	\$0	\$0
Jun	\$0	\$0
Jul	\$0	\$0
Aug	\$0	\$0
Sept	\$0	\$0
Oct	\$2470	\$2905
Nov	\$4000	\$2585
Dec	\$6658	\$4700

- a) Calculate the average monthly expenses. *(3 marks)*
- b) Calculate the average monthly revenue. *(3 marks)*
- c) Did the business experience a loss during any month(s) of the year? If so which ones. *(2 marks)*
- d) Did this business have an **annual** profit or an **annual** loss? How much? *(4 marks)*