## Apprenticeship Math 12

ASSIGNMENT: Buy or Lease a Vehicle
$\qquad$
Date: $\qquad$

1. Stefania lives in Manitoba. She plans to buy a half-ton truck and found two options: Option 1 - She can purchase a new truck, with only basic features for $\$ 56614$ plus $5 \%$ GST and 7\% PST.

Option 2 - She can buy a used one with approximately 120000 km on it, but with many upgraded features, for the same price plus $7 \%$ Retail Sales Tax.
a) Calculate how much Stefania would have to pay for each truck.

Option 1 (new truck): $\qquad$
Option 2 (used truck): $\qquad$
b) Give one reason in support for and one reason against Stefania purchasing each truck.

|  | Reason for | Reason against |
| :---: | :---: | :---: |
| Option 1 |  |  |
| (new truck) |  |  |$\quad$|  |
| :--- |
|  |
| Option 2 |
| (used truck) |

2. George needs to buy a small car for his courier business in Edmonton, $A B$. He has two options:
Option 1 - He can buy the car for $\$ 19195.00$ plus 5\% GST.
Option 2 - He can make a down payment of $\$ 5000.00$, then take out a loan to pay the rest of the purchase price. The bank offers him a loan at an interest rate of $2.50 \%$ per annum, compounded monthly for 3 years.
a) What is the total purchase price of the vehicle?
b) If George makes the down payment and takes out the loan, how much more will he pay for the car than if he had paid the entire purchase price? Assume he will pay the loan back in one payment at the end of the 3-year term.
3. Gayle plans to buy 4 snowmobiles for her company in Yellowknife, NT. Each snowmobile is listed at $\$ 19$ 978, and she must pay $5 \%$ GST. Gayle has $\$ 39500$ saved for a down payment. She takes out a loan for the rest of the purchase price at an interest rate of $4.2 \%$ per annum, compounded semi-annually for 4 years. What is the total cost of the snowmobiles? Assume she will pay the loan back in one payment at the end of the 4-year term.
4. Elena will be leasing a delivery truck for her furniture business. The terms of the lease are as follows:

- term: 5 years
- monthly payment: \$529.95
- security deposit: $\$ 1000.00$
- delivery charge: \$792.27
a) How much will Elena have to pay on the day she first picks up the truck?
b) Assuming Elena returns the truck in good condition at the end of the lease term, what is the total cost of the lease?

5. Anne-Marie is leasing a vehicle for her pet grooming business. She will pay a $\$ 4000.00$ down payment, a $\$ 1000.00$ security deposit, and a delivery fee of $\$ 425.00$. The term of the lease is 36 months and the monthly payments are $\$ 579.00$.
a) How much must Anne-Marie pay at the beginning of the lease?
b) What will her total costs be if she loses half the security deposit due to damage done to the vehicle?

6．Vern needs a truck for his business．He can choose one of the following options：
Option 1 －He can lease a truck for $\$ 1030.50 /$ month for 48 months．There is a $\$ 565$ delivery fee，a $\$ 3000.00$ down payment，and a $\$ 1125.00$ security deposit．
Option 2 －He can buy the truck by making a $\$ 4125.00$ down payment，including taxes，and monthly payments of $\$ 1275.00$ for 48 months．
a）Calculate the cost of leasing the truck for 4 years．Assume he will get the security deposit back at the end of the lease term．
b）Calculate the cost of buying the truck．
c）Which option would you recommend Vern choose？Why？
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