

## Warmup 23-04-13

The total cost of purchasing a new vehicle (including all the options and freight and excise and eco taxes, etc) is \$31,743.00 plus 7% PST and 5% GST. Terri is buying the vehicle with a \$3,500.00 down payment and a loan to finance the remaining balance. The interest rate on the loan is 8% APR compounded monthly, and Terri agrees to repay the loan in five years.

- a) Determine the amount of the loan.
- b) Calculate the amount of each monthly payment.
- c) Determine the full total cost of buying the vehicle.
- d) How much interest did Terri pay to finance the vehicle?
- e) How much would her monthly payments be if she had shopped around and found a bank that would give her a three-year loan at 8% compounded monthly? How much total would she save by paying off the loan in three years instead of 5 years?

*→ check with a bank website if u want*

## PROBLEM SOLVE (Unit A Type of Question)

**Problem Solving.** Solve using a table (or any other method)

You and eight friends are driving west for a Sun Dance in Calgary. You are taking two cars. Four friends start an hour earlier than you at 9:00 am and travel at a speed of **100 km/hr**. You depart an hour later at 10:00 am with Pierre and travel at a speed of **110 km/hr**. Determine at what **time** will you catch up with the first four friends.

Here is the format of a table you *may* want to use

Time	09:00	10:00	11:00	12:00					
Distance First car	0	100	200						
Distance Your Car		0	110						

There is a way to solve using formulae but that is Applied math!

**Conversion Grade 10.** How many seconds in a 120 hour Math course?