**FINANCE TEST**

**When using the TVM solver, you need to show all the values entered in the calculator.**

1. James invested $45 000 at 5.5% interest. He would like his investment to double in value.   
     
   a) Approximately, how long does he have to wait if it is simple interest? [2]  
     
     
     
     
     
     
   b) How long does he have to wait if the interest is compounded annually? [2]  
     
     
     
     
     
     
     
     
   c) How long does he have to wait if the interest is compounded quarterly? [2]
2. Lucie must renovate her house. She borrows some money to her cousin with interest rate 6% compounded monthly. She would like to reimburse the loan in 1 payment after 4 years, but she doesn’t want to pay more than $16000. How much can she borrow max? [2]
3. Last year, Simon borrowed $6000 to repair his roof. He borrowed the money for 2 years with interest rate 7.3% compounded quarterly. He’s making monthly payments to reimburse his loan.   
     
   a) How much are the monthly payments? [2]  
     
   N = FV =   
     
   I% =. P/Y =   
     
   PV =. C/Y =   
     
   PMT =

b) How much interest did he pay total? [1]

1. When he turned 6, Alain started investing money. Every month, he paid $10 towards a savings account at 5.6% interest compounded quarterly. He has kept doing it until he turned 26.   
   How much money did he end up with? How much interest did he earn? [3]   
     
   N = FV =   
     
   I% =. P/Y =   
     
   PV =. C/Y =   
     
   PMT =
2. Kevin used a new credit card to pay for her vacations. She spent $3245, and the interest rate is 18.75%, compounded daily. He wants to reimburse $250 every month.

a)When will he be done reimbursing his debt? [2]  
  
N = FV =   
  
I% =. P/Y =   
  
PV =. C/Y =   
  
PMT =

**b)** When will he have reimbursed half of his debt? [2]  
  
  
N = FV =   
  
I% =. P/Y =   
  
PV =. C/Y =   
  
PMT =

1. You decide to buy a $650 000 house. You make a $65 000 down payment.  
   You borrow the rest at the bank over 20 years with 6.75% interest compounded semi-annually. How much will have spent in total to buy your house if you make regular monthly payments? [2]  
     
     
   N = FV =   
     
   I% =. P/Y =   
     
   PV =. C/Y =   
     
   PMT =
2. Paula has 2 credit cards, and she would like to be debt free in 5 years.

* She owes $3 000 on credit card A (which has a 18.5% interest rate compounded daily)
* She owes $2 500 on credit card B (which has a 19% interest rate compounded daily)

Paula decides to pay off her debt using monthly payments with a line of credit which has 9.6% interest rate, compounded monthly. How much money will she save that way? [4]