**FINANCE TEST**

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

1. James invested $40 000 at 6% interest. He would like his investment to double in value.   
     
   a) How long does he have to wait if it is simple interest?   
     
     
     
     
     
     
   b) How long does he have to wait if the interest is compounded annually?   
     
     
     
     
     
     
     
     
   c) How long does he have to wait if the interest is compounded quarterly?
2. Lucie must renovate her house. She borrows some money to her cousin with interest rate 5.5% compounded monthly. She would like to reimburse the loan in 1 payment after 4 years, but she doesn’t want to pay more than $15000. How much can she borrow max?
3. Last year, Simon borrowed $5000 to repair his roof. He borrowed the money for 2 years with interest rate 7.25% compounded quarterly. He’s making monthly payments to reimburse his loan.   
     
   a) How much are the monthly payments?  
     
     
   N = FV =   
     
   I% =. P/Y =   
     
   PV =. C/Y =   
     
   PMT =

b) How much interest did he pay total?

1. When he turned 5, Alain started investing money. Every month, he paid $5 towards a savings account at 5.8% interest compounded quarterly. He has kept doing it until he turned 25.   
   How much money did he end up with? How much interest did he earn?   
     
     
   N = FV =   
     
   I% =. P/Y =   
     
   PV =. C/Y =   
     
   PMT =
2. Kevin used a new credit card to pay for her vacations. She spent $2834, and the interest rate is 18.75%, compounded daily. He wants to reimburse $200 every month.

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

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

1. You decide to buy a $600 000 house. You make a $50 000 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?   
     
     
   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 $2500 on credit card A (which has a 18.5% interest rate compounded daily)
* She owes $3000 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?