Ma 11 - FL

Name:

Compound Interest Assignment

Date:

1) The following questions are based on the TVM Solver application of the graphing calculator
   a) State the sequence of key strokes to get to the TVM Solver.

   b) What do you do to find the value of an unknown variable?

   c) What do you have to remember about FV and PV?

   d) If it is compounded quarterly, what should the value of C/Y be?

2) State the values that should be entered for each of the variables in the TVM Solver. You do not need to solve.
   a) Determine the amount of an investment if $600 is invested at 3.5% interest for 7 years compounded semi-annually.

N _____ FV _____

I% _____ P/Y _____

PV _____ C/Y _____

PMT _____

b) How long would it take $4000 to grow to $6000 if it is invested at 2.3% compounded monthly?

N _____ FV _____

I% _____ P/Y _____

PV _____ C/Y _____

PMT _____

c) What interest rate is needed for $10 000 to double in 5 years if it is compounded quarterly?

N _____ FV _____

I% _____ P/Y _____

PV _____ C/Y _____

PMT _____

d) What amount needs to be invested at 0.8% interest compounded weekly if you have $650 after 1 year?

N _____ FV _____

I% _____ P/Y _____

PV _____ C/Y _____

PMT _____

3) A deposit of $1550 will grow to $1680.20 in 2 years. What rate of interest is given if interest is calculated annually?

4) Owen invested $3500 in a savings bond. After 2 years he cashed it in for $4235.45.
    a) What was the rate of interest if it was compounded quarterly?

    b) What was the rate of interest if it was compounded monthly?

    c) What was the rate of interest if it was compounded weekly?

5) Approximately how long would it take for a $25 000 investment to double if it is compounded semi-annually at the following interest rates?
    a) 0.5%

    b) 2%

    c) 5.5%

    d) 9%

    e) 20%

6) Rick needs to have $3000 to buy a car. He can invest his savings in a GIC that pays 5.2% compounded monthly. How much does he need to invest now, if he waits the following lengths of time?

   a) 6 months

   b) 1 year

   c) 2 years

   d) 5 years

7) Fred moved and forgot to let his bank know that he has a different address. As a result, the $750 that he charged to his credit card was not paid for 3 months. If Fred's credit card interest is at 28.99% and is compounded daily (this happens for cash advances), how much does he now owe?