Using the Finance Solver

Learning goals
- **learn to use the calculator to solve financial problems**
- **recognize the variables used (given or required)**

How to open the 'Finance Solver' Window:

For Handheld Calculators

Steps

1. open a 'New Document'
   -> then 'Add Calculator' [1]

2. click MENU
   - select '8: Finance'
     - select '1: Finance Solver...'

* this will open the 'Finance Solver' window

How to use the Finance Solver: For Handheld

N = # of total compounding periods
I(%) = annual interest rate (do NOT change to a decimal)
PV = Principal value (0 if unknown)
Pmt = Payment
FV = Future value (0 if unknown)

PpY = Payments per year

CpY = Compounding periods per year

PmtAt = When is the payment made (leave as END)

Note: PpY and CpY must always be the same

search Google for TVM Solver

For ipads

go to

http://www.zenwealth.com/BusinessFinanceOnline/TVM/TVMCalcWindow.html

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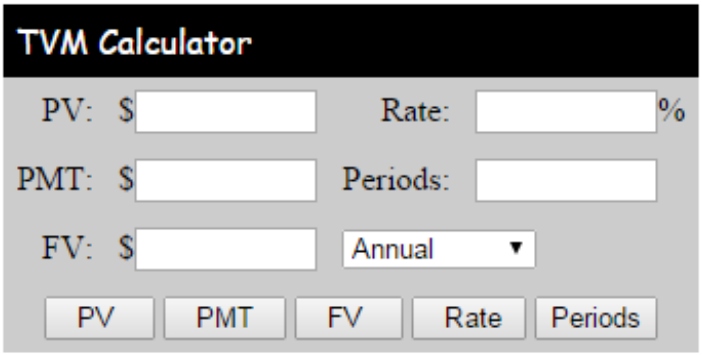
For ipads



Periods -- number of compounding periods

Annual -- drop down menu for compounding periods / year

Géza took out a loan of $5000 to buy a new car. The conditions of the bank state that interest on the loan will be 6% per year, compounded monthly. How much will he owe the bank after 4 years?

PV = 5000

PMT= 0

FV= ? 6352.45

Rate (I) = 6

Periods (N)= 4 · 12

Compounding= monthly

(PpY and CpY)

PmtAt=END

In three years time, Lajos's friends want her join them on a back-packing trip across Europe. The trip will cost about $4500. The best investment plan she could find offers her 4% per year, compounded quarterly? How much money does she need to invest now to be able to pay for her trip in three years time?

PV = ? 3993.52
PMT= 0
FV= 4500

Rate (I) = 4
Periods (N)= 4·3
Compounding= quarterly
(PpY and CpY)

PmtAt=END

What annual interest rate was charged if an $800 credit card bill grew to $920.99 in 6 months and interest was compounded monthly?

PV = 800
PMT= 0
FV= 920.99

Rate (I) = ? 28.5%
Periods (N)= 6
Compounding= monthly
(PpY and CpY)

PmtAt=END

1. Kayla has invested $2000 for 10 years at 15%/year, compounded semi-annually.
2. How much will she have at the end of 10 years?

PV = 2000
PMT= 0
FV= ? 8495.70

Rate (I) = 15
Periods (N)= 20
Compounding= semi-
(PpY and CpY) annually

PmtAt=END

1. Kayla has invested $2000 for 10 years at 15%/year, compounded monthly.
2. How much will she have at the end of 10 years?

PV = 2000
PMT= 0
FV= ? 8880.43

Rate (I) = 15
Periods (N)= 120
Compounding= monthly
(PpY and CpY)

PmtAt=END

1. Kayla has invested $2000 for 10 years at 15%/year, compounded daily.
2. How much will she have at the end of 10 years?

PV = 2000
PMT= 0
FV= ? 8960.62

Rate (I) = 15
Periods (N)= 3650
Compounding= daily
(PpY and CpY)

PmtAt=END

Conclusion

To make more money...

1. Compounding more often
2. Higher interest rate
3. Start with a bigger amount.
4. Leave money in longer.

Practice using the calculator

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