

Texas Instruments BAI Plus

Useful Keystrokes Summary

How to change the decimal format:

1. **2nd** button
2. decimal point **.** button
3. you will see “DEC= “
4. click **4**,
5. click **Enter**
6. you should see **0.0000**

How to change payment per period:

1. **2nd** button
2. **I/Y** button
3. you will see “P/Y=”
4. click **1**
5. **Enter**

How to change payment period (Begin or End)

1. **2nd** button
2. **PMT**
3. you will see “END” or “BGN”
4. click **2nd** button again
5. click **SET** to change it

How to clear TVM previous work (every time before you doing a new problem, you need to clear previous memory)

1. **2nd** button
2. **FV**

How to clear CF (cash flow) previous work (just like clear TVM memory, you need to clear CF memory before you doing a new CF problem)

1. **2nd** button
2. **CE/C**

How to use store and recall number

1. For your current number on the screen, if you want to save it, click **STO**
2. click any 0 to 9 button, if you click **0**, the number will be save in **0** cell, etc
3. When you want to recall this number, click **RCL**, then click the cell where you put the number in, say **0**
4. If you again save a new number to the same cell, say **0**, the previous saved number will be overwrote.

How to find the Nominal (APR) and Effective Rate

1. **2nd** button
2. click **2**, you will see “**NOM=**”, and you will see the up and down arrows on the top of your screen (means more option)
3. If say the Nominal interest rate is 10% per year, payment is monthly (12 payment per year), what is the effective interest rate?
4. click the **up arrow**, you will see either **C/Y, 12 ENTER**, you will see “**C/Y= 12**”

5. click the **up arrow** again, you will see “EFF=”, then click **CPT**
6. you will see “EFF= 10.4713”
7. same way for finding the APR by knowing the Effective rate.

How to find the future value FV

Clear your TVM memory first!

Present value is \$1000, you save it in a bank, interest rate is 10%, how much you will get ten period (10 year) later?

PV= - 1000, I/Y=10, N=10, Compute (CPT) FV, you will get \$2593.7425

How to find the Present value PV

Clear your TVM memory first!

Interest rate is 10%, how much you need to deposit today to let you get \$1000 in the future period (10 year later)?

FV= 1000, I/Y=10, N=10, Compute (CPT) PV, you will get \$ - 385.5433

How to find the Interest rate?

Clear your TVM memory first!

You know if you deposit 385.5433 today, you will get 1000 ten periods later (10 years), what is the interest rate (of course it is compounded).

PV= - 385.5433, FV= 1000, N=10, Compute (CPT) I/Y, you will get 10

How to find the Interest rate?

Clear your TVM memory first!

You know if you deposit 385.5433 today, you will get 1000 ten periods later (10 years), what is the interest rate (of course it is compounded).

PV= - 385.5433, FV= 1000, N=10, Compute (CPT) I/Y, you will get 10

How to find the total payment periods?

Clear your TVM memory first!

You know if you deposit 385.5433 today, you will get 1000 later (you don't know when), by given 10% per year interest rate, what is the payment period?

PV= - 385.5433, FV= 1000, I/Y=10, Compute (CPT) N, you will get 10

How to find future value of annuity?

Clear your TVM memory first!

If you deposit \$1000 at the end of every period for the next 10 period (10 years), what will you get 10 years later by given the interest rate is 10% annually.

PMT= - 1000, I/Y=10, N=10, Compute (CPT) FV, you will get 15937.4246

How to find present value of annuity?

Clear your TVM memory first!

How much you need to deposit today that will let you withdraw \$1000 at the end of every period for the next 10 period (10 years), by given the interest rate is 10% annually.

PMT= 1000, I/Y=10, N=10, Compute (CPT) PV, you will get 6144.5671

How to find future value of annuity together with PV?

Clear your TVM memory first!

If you deposit \$10,000 today and you will deposit \$1000 at the end of every period for the next 10 period (10 years), what will you get 10 years later by given the interest rate is 10% annually.

PV= -10000, PMT= - 1000, I/Y=10, N=10, Compute (CPT) FV, you will get 41875.8492

How to find future value of annuity together with FV?

Clear your TVM memory first!

How much you need to deposit today that will let you withdraw \$1000 at the end of every period for the next 10 period (10 years) and at the last withdraw, you will not only withdraw that \$1000, but also withdraw additional \$10,000, by given the interest rate is 10% annually.

FV= 10000, PMT= 1000, I/Y=10, N=10, Compute (CPT) PV, you will get 10,000

This example is how Perpetuity comes from.

How to use Amortization function:

1. Enter all the information you have. Example, You borrow \$200,000, you need to pay off it over 30 years at an 8% interest rate on the unpaid balance, what are the 30 equal annual payments? How much do you pay towards interest in your third payment?

Clear your TVM memory first!

2. Enter PV=200,000 N=30, I/Y=8, CPT PMT, you will get -17765.4867 which means you need to pay this much every year.
3. **Don't clear your memory at this time**, go on click 2nd, and PV buttons
4. you will see "P1=", if you want third period payment, you enter 3, then click down arrow
5. you will see "P2=", enter 3 also
6. then you will see "BAL=194268.524", click down arrow, you will see "PRN=-2059.2637", then "INT=-15706.2230"
7. Then repeat this process to check other period principle payment, interest payment and balance.

How to use CF cash flow functions to get the NPV, **CFo is the cost!**

1. Suppose company is undertaking a project, which will let the company has cash outflow (cost) \$-1000 today (time period 0), then it has 2000 inflow every year for the next two years (time period 1 and 2), then it has 3000 for the rest of 8 years (time period 3 to 10). Total is 10 years. What is the NPV of the project the company has today by given the interest rate is 10%?
2. **Clear CF memory first! Click 2nd and CE/C**
3. click CF, you will see "CFo=", this is for period 0 cash flow, then you enter \$ -1000, click the down arrow, you will see "C01=", you enter 2000, then click down arrow, you will see "F01=" which is frequency for this inflow, since we have two years inflow are 2000, then we enter 2 for the F01,
4. Go on enter 3000 for C02, enter 8 for F02
5. After you finishing enter the information, click NPV, you will see "I=", enter 10, then click down arrow, click CPT, you will need to wait a while to get the result which will be "NPV=15698.1641"

How to use CF cash flow functions to calculate IRR (which will let the NPV=0)

1. Suppose company is undertaking a project, which will let the company generate cost of -10,000 (time period 0), then it has 2000 inflow every year for the next two years (time

