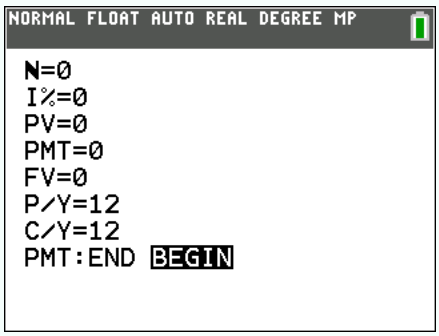
1.4 Compound interests

The very useful **TVM solver** can be used for various compound interest problems. We will first present you the solver, and then do an example.

1.4.1 Presentation of TVM Solver

To access **TVM Solver**, press apps, **Finance...** and **TVM Solver...**:



N is the total **N**umber of compounding periods (years × compounding periods per year).

I% is the **I**nterest rate (in percentage, so entering 5 means "5%").

PV is the **P**resent **V**alue (the value at the start of the loan).

PMT is the **P**ay**M**en**T** at each period.

FV is the **F**inal **V**alue (the value at the end).

P/Y is the **P**ayments per **Y**ear.

C/Y is the **C**ompounding periods per **Y**ear.

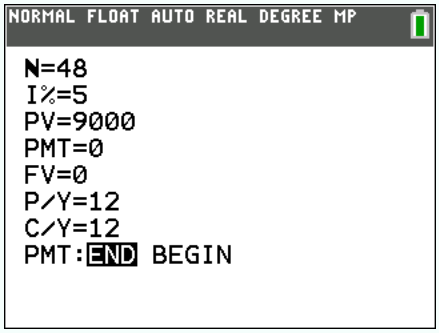
PMT is to set **P**ay**M**en**T**s due at **BEGIN**ning or **END** of each period.

Enter cash inflows as positive numbers and cash outflows as negative numbers

1.4.2 Example of computation

You have found a car you would like to buy. You can afford payments of 250$ at the end of each month for four years. The car costs 9,000$. Your bank offers an interest rate of 5%, compounded monthly. What will your payments be? Can you afford it?

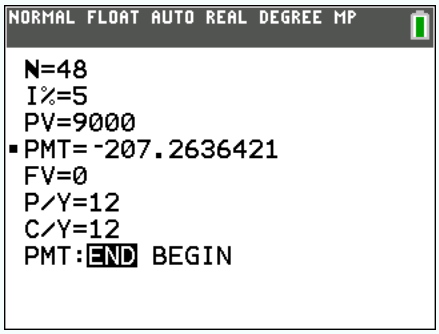
① Press angle B apps , `Finance...`, `TVM Solver...`, and fill the app the following way:



`PV` is positive because the car counts as cash inflow

s

② Select the value that you want to know (here: `PMT`), and press A-lock alpha entry solve enter . The following should be displayed:



The "▪" on the left indicates the value solved

Thus, you **can** afford the car since you would have to pay more or less 207.25$ (it is displayed as a negative number since it is an outflow of cash) per month, which is less than 250$!