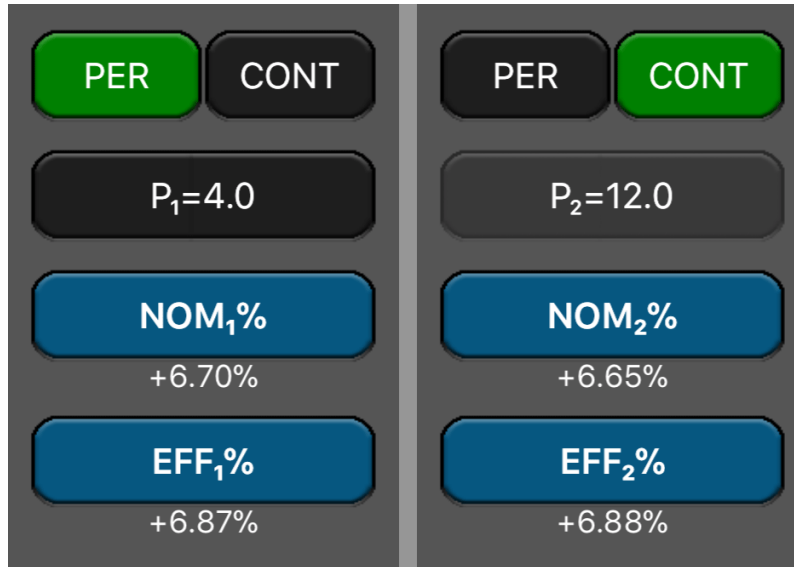


# Interest Conversion Menu

The Interest Conversion menu allows you to convert between nominal and effective interest rates using either: Periodic compounding or Continuous compounding. To show it touch the “**OPT**” key and in the section “**3) Conversions:**” or section “**4) Finance:**”, touch the “**Interest Conv.**” button.



The interest conversions use the following equations:

$$\text{(Periodic)} \quad \%EFF_i = 100 \cdot [ ( 1 + \%NOM_i \div P_i \div 100 )^{P_i} - 1 ]$$

$$\text{(Continuous)} \quad \%EFF_i = 100 \cdot ( e^{\%NOM_i / 100} - 1 )$$

For convenience, the menu allows to analyze and calculate two interest rates in the same view. This is specially useful for comparing nominal interest rates of different conditions.

## Interest Conversion Menu

<b>[PER] [CONT]</b>	Set the interest conversion mode; Periodic or Continuous interest Compounding.
<b>[ P<sub>i</sub> ]</b>	Stores the number of compounding periods per year in the “Periodic” interest conversion mode.
<b>[ NOM<sub>i</sub>% ]</b>	Stores or calculates the Nominal interest rate.
<b>[ EFF<sub>i</sub>% ]</b>	Stores or calculates the Effective interest rate.

If any other key is pressed before one of the Blue keys, the displayed number is stored in the corresponding variable. Otherwise, the variable will be calculated.

### **Example: Saving Accounts Comparison**

You have offers to open a saving account from three banks:

- Bank #1 offers a 6.70% annual interest compounded quarterly.
- Bank #2 offers a 6.65% annual interest compounded monthly and
- Bank #3 offers a 6.65% annual interest compounded continuously.

What is the best?.

**Solution:** Follow the next sequence:

Keystrokes	Description
Bank #1 <b>[PER]</b>	Sets the Periodic mode for Bank #1
4 <b>[ P<sub>1</sub> ]</b>	Stores the number of periods per year of Bank #1. <b>P<sub>1</sub> = 4</b>

Keystrokes	Description
6.7 [NOM <sub>1</sub> %]	Stores the nominal interest of Bank #1. %NOM <sub>1</sub> = 6.70%
[EFF <sub>1</sub> % ]	Calculates Bank #1 effective rate. EFF <sub>1</sub> % = 6.87
Bank #2 [PER]	Sets the Periodic mode for Bank #2
12 [ P <sub>2</sub> ]	Stores the number of periods per year of Bank #2. P <sub>2</sub> = 12
6.65 [NOM <sub>2</sub> %]	Stores the nominal interest of Bank #2. %NOM <sub>2</sub> = 6.65%
[EFF <sub>2</sub> % ]	Calculates Bank #2 effective rate. EFF <sub>2</sub> % = 6.86%
Bank #1 is better than Bank #2, so keep the data of Bank #1 and precede to enter Bank #3 data.	
Bank #3 [CONT]	Sets the Periodic mode for Bank #3
6.65 [NOM <sub>2</sub> %]	Stores the nominal interest of Bank #3. %NOM <sub>2</sub> = 6.65%
[EFF <sub>2</sub> % ]	Calculates Bank #3 effective rate. EFF <sub>2</sub> % = 6.88%

**Answer:** Bank #3 is offering the most favorable interest rate of 6.88%.