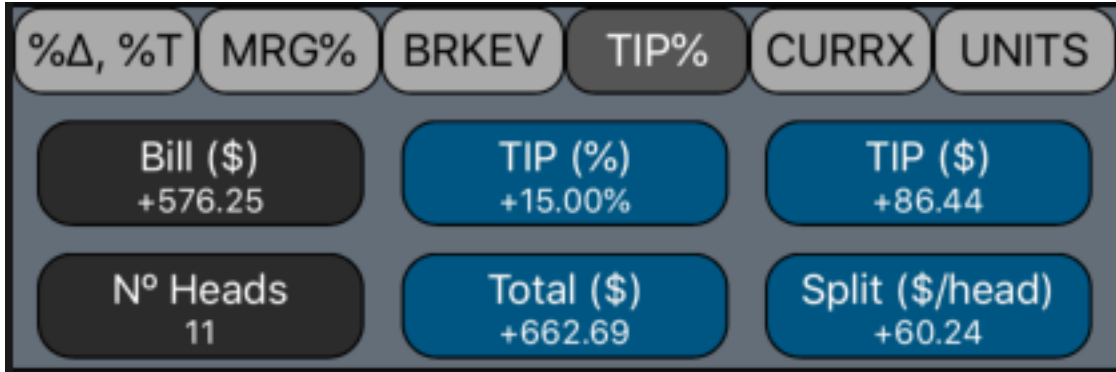# TIP Calculation Menu

This tool implements a simple way to manage the "Bill-Tip-Split" problem. To show it, touch the "**BUS**" menu and select the "**TIP%**" tab.



To perform the calculations, two parameters and one variable must be entered. The parameters are the Bill amount "**Bill($)**" and the number of persons that share the bill "**N° Heads**". The variable could be any of the blue buttons.

Each time a number is entered into a parameter or variable, the calculation of all the others are performed automatically :

| Button | Performed Actions |
|---|---|
| Type a number and touch **[Bill ($)]** | Stores the Bill amount and calculates :<br>**TIP($) = Bill($) · ( TIP(%) ÷ 100)**<br>**Total($) = Bill($) + TIP($)**<br>**Split($) = Total($) ÷ Split($/Head)** |
| Type a number and touch **[N°Heads]** | Stores the number of persons and calculates :<br>**Split($) = Total($) ÷ Split($/Head)** |
| Type a number and touch **[TIP(%)]** | Stores the tip percentage and calculates :<br>**TIP($) = Bill($) · ( TIP(%) ÷ 100)**<br>**Total($) = Bill($) + TIP($)**<br>**Split($) = Total($) ÷ Split($/Head)** |

| Button | Performed Actions |
|---|---|
| Type a number and touch **[TIP($)]** | Stores the tip amount and calculates :<br>**TIP(%) = 100 · ( TIP($) ÷ Bill($) )**<br>**Total($) = Bill($) + TIP($)**<br>**Split($) = Total($) ÷ Split($/Head)** |
| Type a number and touch **[Total($)]** | Stores the total to be paid and calculates :<br>**TIP($) = Total($) - Bill($)**<br>**TIP(%) = 100 · ( TIP($) ÷ Bill($) )**<br>**Split($) = Total($) ÷ Split($/Head)** |
| Type a number and touch **[Split($/Head)]** | Stores the each person amount to pay and calculates :<br>**Total($) = N°Persons · Split($/Head)**<br>**TIP($) = Total($) - Bill($)**<br>**TIP (%) = 100 · ( TIP($) ÷ Bill($) )** |

## Example:

A dinner Bill is $576.25 and 11 persons will share it. What is the amount per person if all agree to add a 15% tip?.

## Solution:

| Keystrokes | Description |
|---|---|
| Type 576.25 **[Bill($)]** | Stores the Bill amount. |
| Type 11 **[N° Heads]** | Enter the number of persons. |
| Type 15 **[TIP(%)]** | Stores the tip percentaje. |
| **[TIP($)]** | Shows the tip amount.<br>**Tip Amount = $86.44** |
| **[Total($)]** | Shows the total amount.<br>**Total Amount = $662.69** |
| **[Split($/Head)]** | Shows the amount to pay per person.<br>**Total / Person = $60.24** |

Suppose no one wants to pay the exact amount and the split is rounded to $60.00. What is the Tip% and the new Total ?

| Keystrokes | Description |
| --- | --- |
| Type 60<br>**[Split($/Head)]** | Stores the rounded amount per person. |
| **[Total($)]** | Shows the new Total.<br>**Total Amount = 660.00** |
| **[TIP($)]** | Shows the tip amount.<br>**Tip Amount = $83.75** |
| **[TIP(%)]** | Shows the new Tip percent.<br>**TIP (%) = 14.53** |