

Tip & Bill Split Calculation Menu

This tool implements a simple way to manage the “Bill-Tip-Split” problem. To show it, touch the “**OPT**” menu and in the section “5) Business”, touch the “**Tip & Bill Split**” button.

Tip & Bill Split Calculation

Bill (\$) +576.25	N° Heads 11
TIP (%) +14.53%	TIP (\$) +83.75
Total (\$) +660.00	Split (\$/head) +60.00

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
[Bill (\$)]	Stores the Bill amount and calculates : $\mathbf{TIP(\$) = Bill(\$) \cdot (TIP(\%) \div 100)}$ $\mathbf{Total(\$) = Bill(\$) + TIP(\$)}$ $\mathbf{Split(\$) = Total(\$) \div Split(\$ / Head)}$
[N°Heads]	Stores the number of persons and calculates : $\mathbf{Split(\$) = Total(\$) \div Split(\$ / Head)}$

Button	Performed Actions
Type a number and touch [TIP(%)]	Stores the tip percentage and calculates : $\text{TIP}(\$) = \text{Bill}(\$) \cdot (\text{TIP}(\%) \div 100)$ $\text{Total}(\$) = \text{Bill}(\$) + \text{TIP}(\$)$ $\text{Split}(\$) = \text{Total}(\$) \div \text{Split}(\$/\text{Head})$
Type a number and touch [TIP(\$)]	Stores the tip amount and calculates : $\text{TIP}(\%) = 100 \cdot (\text{TIP}(\$) \div \text{Bill}(\$))$ $\text{Total}(\$) = \text{Bill}(\$) + \text{TIP}(\$)$ $\text{Split}(\$) = \text{Total}(\$) \div \text{Split}(\$/\text{Head})$
Type a number and touch [Total(\$)]	Stores the total to be paid and calculates : $\text{TIP}(\$) = \text{Total}(\$) - \text{Bill}(\$)$ $\text{TIP}(\%) = 100 \cdot (\text{TIP}(\$) \div \text{Bill}(\$))$ $\text{Split}(\$) = \text{Total}(\$) \div \text{Split}(\$/\text{Head})$
Type a number and touch [Split(\$/Head)]	Stores the each person amount to pay and calculates: $\text{Total}(\$) = \text{N}^\circ \text{Persons} \cdot \text{Split}(\$/\text{Head})$ $\text{TIP}(\$) = \text{Total}(\$) - \text{Bill}(\$)$ $\text{TIP}(\%) = 100 \cdot (\text{TIP}(\$) \div \text{Bill}(\$))$

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
576.25 [Bill(\$)]	Stores the Bill amount.
11 [N° Heads]	Enter the number of persons.
15 [TIP(%)]	Stores the tip percentaje.
[TIP(\$)]	Show the tip amount. Tip Amount = \$86.44

Keystrokes	Description
[Total(\$)]	Shows the total amount. Total Amount = \$662.69
[Split(\$/Head)]	Shows the amount to pay per person. 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 [Split(\$/Head)]	Stores the rounded amount per person.
[Total(\$)]	Shows the new Total. Total Amount = 660.00
[TIP(\$)]	Shows the tip amount. Tip Amount = \$83.75
[TIP(%)]	Shows the new Tip percent. TIP (%) = 14.53