Percentage Calculations

The HP-12C calculator has three keys for solving percentage problems: **[%]**, **[Δ%]**, and **[%T]**. There is no need to convert percentages to their decimal equivalents, the calculator automatically does the conversion when you press any of these keys.

Percent Function [%]

The **[%]** key calculates the stack-X value percentage of the stack-Y value. The result in stack-X is equal to $Y \cdot X / 100$.

Example : Percent of a Number
What is 15% of 45.3?

(in RPN mode)

Keystrokes	Description
Type "45.3" **[ENTER]**	Type the value and press "ENTER".
Type "15" **[%]**	Type the percentage and press "%". **Result = 6.8**

(in ALG mode)

Keystrokes	Description
Type "45.3" **[x]**	Type the value and press multiply.
Type "15" **[%]**	Type the percentage and "%".
[=]	Calculates the result. **Result = 6.8**

Example : Discount and Tax

If you buy a new iPhone at a list price of $550.00, and the seller offers you an 8% discount, what is the net price? Also, if the tax rate is 6%, what is the total cost including tax?

(in RPN mode)

Keystrokes	Description
Type "550" **[ENTER]**	Type the list price and press "ENTER".
Type "8" **[%] [-]**	Type the discount and subtract it. **Result = 506.00**
Type "6" **[%] [+]**	Type the tax rate and add it. **Result = 536.36**

(in ALG mode)

Keystrokes	Description
Type "550" **[-]**	Type the list price and press minus.
Type "8" **[%]**	Type the discount and "%". **Result = 44.00**
[=]	Calculates the result. **Result = 506.00**
[+] Type "6" **[%]**	Press plus, type the tax rate and "%". **Result = 30.36**
[=]	Calculates the result. **Result = 536.36**

Percent Change Function [Δ%]

The **[Δ%]** key calculates the percent difference between the starting, or base, value (stack-Y) and a later, or changed, value (stack-X). The result in stack-X is equal to $100 \cdot (X - Y) / Y$.

Example : Percent Change
What is the percent change of a stock if last year it sold for $425 and now it costs $350 per share?

Keystrokes	Description
Type "425" **[ENTER]**	Type the base value and press "ENTER".
Type "350" **[Δ%]**	Type the changed value and press "Δ%". **Result= -17.65% (a negative result indicates a decrease over time)**

Percent of Total Function [%T]

The **[%T]** key calculates the percentage that the stack-X value is of the stack-Y value. The result in stack-X is equal to $100 \cdot X / Y$.

Example : Percent of Total
In a company there are 1152 employees in total, 350 women, and 802 men. What percentage of the employees are female ?.

(in RPN or ALG mode)

Keystrokes	Description
Type "1152" **[ENTER]**	Type the total value and press "ENTER".
Type "350" **[%T]**	Type the number of females and press "%T". **Result = 30.38%** of the employees are female.