

Units Conversion Worksheet

This worksheet adds a powerful and completely customizable physical units conversion calculations.



The screenshot shows a mobile application interface for unit conversion. It features a scrollable list of units and their S.I. equivalents. The units listed are: Survey Inches (su.in) with a value of 151.45, Survey Leagues (su.lg) with a value of 7.97E-04, Survey Yards (su.yd) with a value of 4.21, and Siriusweit (swt) with a value of 2.49E-17. The 'Yards' category is currently selected, and the unit 'yd' is shown with a value of 4.21. At the bottom, there are four buttons: 'Category Length' (with a right-pointing arrow), 'Units Editor' (in a yellow box), a blue '+' button, and a blue '-' button.

su.in	151.45
Survey Leagues	
su.lg	7.97E-04
Survey Yards	
su.yd	4.21
Siriusweit	
swt	2.49E-17
Yards	
yd	4.21

All units are defined in terms of its S.I. (meter-kilogram-second) equivalence using the following formula:

$$(\text{Value in S.I.}) = [(\text{Value in Unit}) - C_n / C_d] \cdot K_n / K_d + C_o$$

In this way, all the units conversions are defined with the values of “Cn”, “Cd”, “Kn”, “Kd” and “Co” constants.

Touch the Select Category button to display a list with units categories available. Select the desire category from the list and all the available units in that category will be shown in the Units Equivalent table.

Simply type a value in the calculator and touch the unit row in the list to assign that value to that unit. The **Units** menu will calculate all the other units equivalent values automatically.

Optionally, units arithmetics can be performed using [+] or [-] buttons in the worksheet (see the example below).

Touching the [**Units Editor**] button, the “**Units Editor**” view will be shown. There, you can fully edit the categories and units listing at your preference.

Example: Units Conversion and Arithmetic

Add 11.36 feet plus 5.75 inches plus 2 meters plus 25 centimeters and minus 0.1 chains, what is the total length expressed in yards?

Solution:

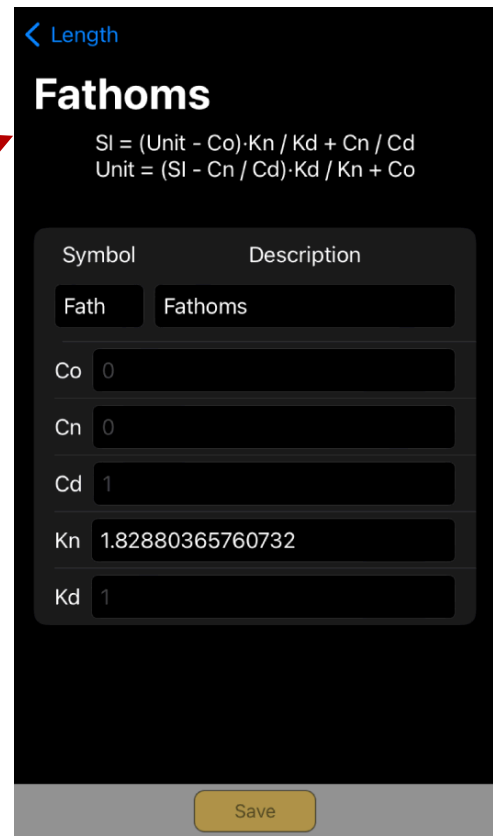
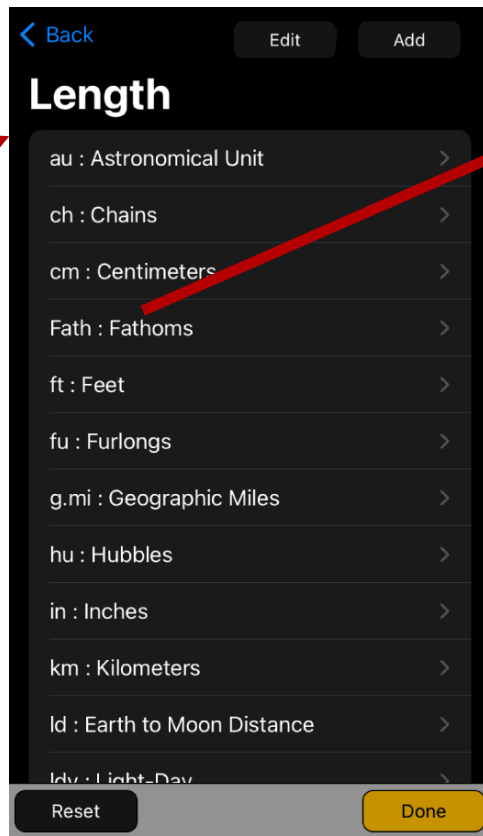
With the “Unit Conversion” menu in place, select the “**Length**” category. Then follow the next sequence:

Keystrokes	Description
11.36 touch the “ft” unit	Enters 11.36 feet.
5.75 [+] touch the “in” unit	Adds 5.75 inches to the conversion.
2 [+] touch the “m” unit	Adds 2 meters to the conversion.
25 [+] touch the “cm” unit	Adds 25 centimeters to the conversion.
0.1 [-] touch the “ch” unit	Subtract 0.1 chains from the conversion.
Touch the “yd” unit	Recalls and display the total conversion value in yards. Result = 4.21 (yds)

Units Editor

This view adds a convenient editor to customize the “**Units**” database used by the “**Unit Conversion**” tool. To show it, touch the [**Units Editor**] button in the “**Units**” conversion tool or, select the “**Units Conversion**” in the “**Editors**” sub-menu from the “**Utilities**” options menu.

Touch a category name to navigate to its units. Touch a unit to navigate to its definition.



Touch **Add** to insert a new category or a new unit within the selected category.
Touch **Edit** to delete a category or a unit.

Touch the [**Reset**] button to reset any change and recover the original factory database.