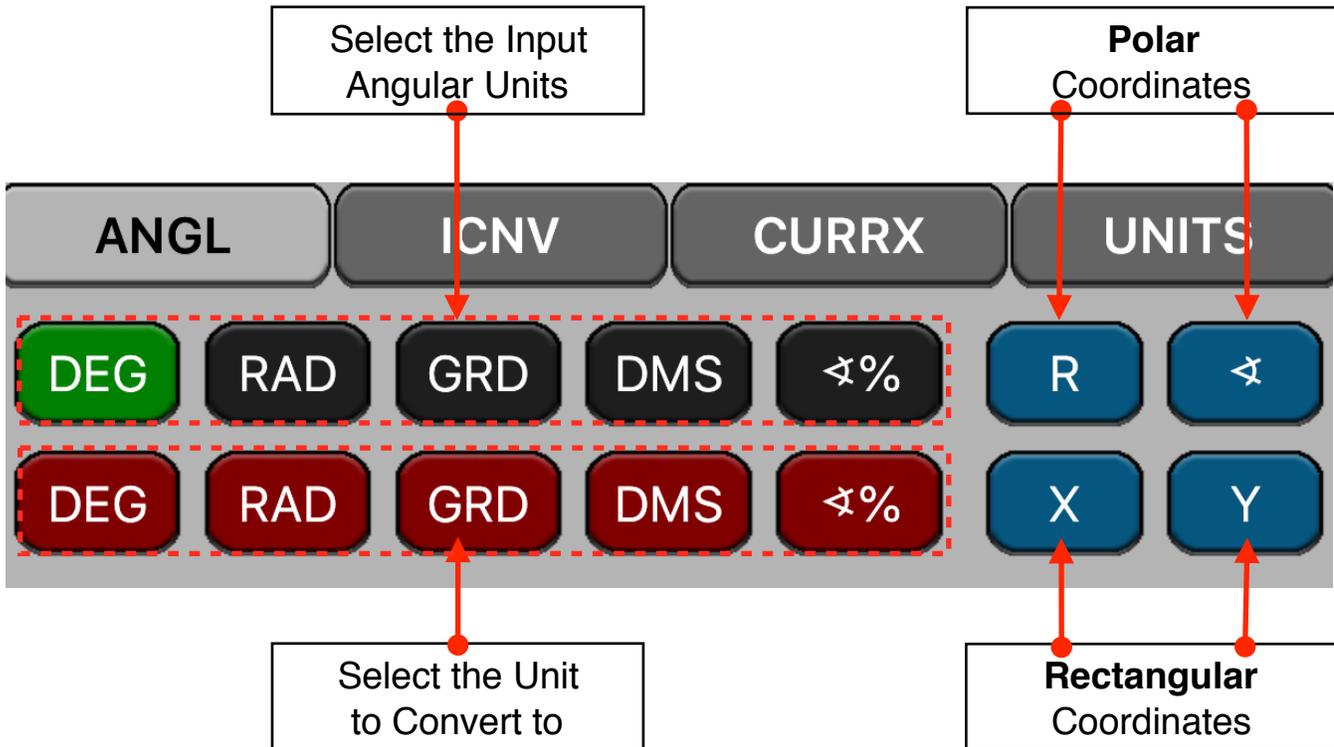


Angles & Polar Conversions Tool

This menu adds an angular and coordinates conversion functions to the calculator. To show it, select the “**Convert**” menu from the main menu, and select the “**ANGL**” option.



Touch any of the “Angle Unit” buttons to assign the selected unit to the displayed number, then touch any of the “Convert To...” buttons to perform the conversion to the selected unit. When the conversion is performed, the “Angle Unit” is updated to indicate the resulting angular unit.

Also a Polar-Rectangular conversion are added where the polar angle is interpreted in the “Angle Unit” setting.

The following examples assumes the “ANGL” tool is already visible in the calculator.

Example 1: Convert 88° 57' 23.45" to decimal degrees.

Keystrokes	Description
Select [DMS] as Input unit	Set the input angle unit to Degree-Mnute-Seconds.
Type 88.572345	Type the DMS angle.
Touch convert to [DEG]	Convert to decimal Degrees. Result = 88.9565

Example 2: Convert 23.5 Degrees to Radians, gradians, slope percent and Degree-Minutes-Seconds.

Keystrokes	Description
Type 23.5 & set Input unit to [DEG]	Type the value to convert and set the Angular unit to Degrees.
[RAD]	Convert to Radians. Result = 0.4102
[GRD]	Convert to Gradians. Result = 26.1111
[*%]	Convert to slope percent. Result = 43.4812
[DMS]	Convert to D.MMSS format. Result = 23.3000 (23 degrees, 30 minutes and 0 seconds).

Example 3: Convert " $\pi / 3$ " Radians to Degree-Minute-Second Format.

Keystrokes (RPN mode)	Description
[↵] [π] [÷] "3" [=] [DEG] [RAD]	Set Angular unit to Degrees, type 180, convert to radians and divide by 3. Result = 1.0472 ($\pi / 3$ radians).
[DMS]	Convert to D.MMSS format. Result = 60.00 (60 degrees, 0 minutes and 0 seconds).

Example 4: Convert the rectangular coordinate (10.0, 5.0) to polar coordinates. Express the angular result in Degrees.

Keystrokes	Description
Type "10" [X]	Type the X-coordinate and touch [X] button to enter it.
Type "5" [Y]	Type the Y-coordinate and touch [Y] button to enter it.
[DEG]	Set the Angular unit to Degrees.
[R]	Calculate the radius. Result = 11.1803 (Radius)
[↵]	Calculate the angle. Result = 26.5651 (Degrees)

Example 5: Convert the polar coordinate (12.0 , $\angle 30.0^\circ$) to rectangular coordinates.

Keystrokes	Description
Type "12" [R]	Type the radius and touch [R] button to enter it.
Type "12" [↵]	Type the angle and touch [↵] button to enter it.
[DEG]	Set the Angular unit to Degrees.
[X]	Calculate the X-coordinate. Result = 10.3923
[Y]	Calculate the Y-coordinate. Result = 6.0000