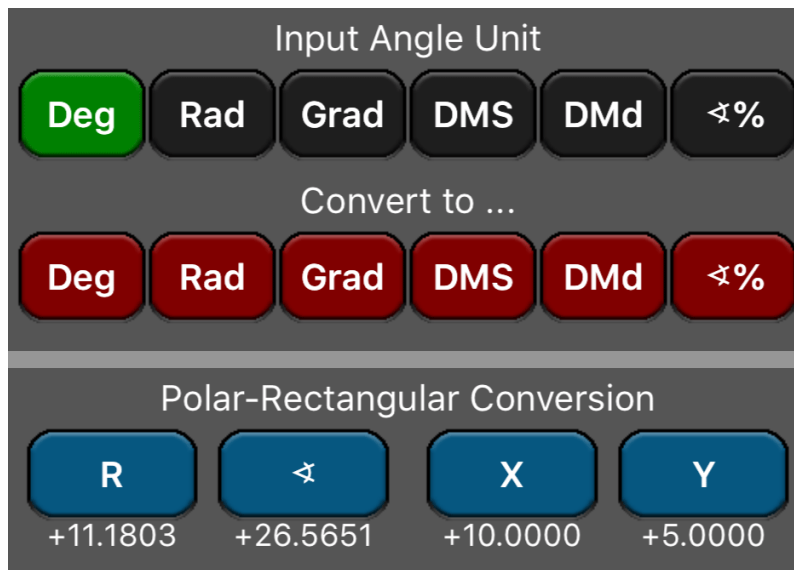


# Angles & Polar Conversions Menu



Key	Action
<b>[DEG]</b> <b>[RAD]</b> <b>[GRD]</b> <b>[DMS]</b> <b>[DMd]</b> <b>[↗%]</b>	Touch to set the angular unit of the displayed number to Decimal Degrees, Radians, Gradians, Degree-Mnute-Seconds, Degree-Arc Minutes or Slope Percent.
<b>[DEG]</b> <b>[RAD]</b> <b>[GRD]</b> <b>[DMS]</b> <b>[DMd]</b> <b>[↗%]</b>	Touch to convert the displayed number from the current angular unit to Decimal Degrees, Radians, Gradians, Degree-Mnute-Seconds, Degree-Arc Minutes or Slope Percent. Also updates the current unit.
<b>[ R ]</b> <b>[ ↗ ]</b> <b>[ X ]</b> <b>[ Y ]</b>	Stores or calculates the Polar (R, ↗) or Rectangular (X,Y) coordinates.

Note: In the Polar-Rectangular conversion, the polar angle is interpreted in the current angle unit setting.

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

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

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

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

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

Keystrokes (RPN mode)	Description
Type "180" & <b>[DEG]</b> <b>[RAD]</b> "3" <b>[÷]</b>	Set Angular unit to Degrees, type 180, convert to radians and divide by 3. <b>Result = 1.0472</b> ( $\pi / 3$ radians).
<b>[DMS]</b>	Convert to D.MMSS format. <b>Result = 60.00</b> (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. <b>Result = 11.1803</b> (Radius)
[↵]	Calculate the angle. <b>Result = 26.5651</b> (Degrees)

**Example 5:** Convert the polar coordinate (12.0 , ∠30.0°) 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. <b>Result = 10.3923</b>
[Y]	Calculate the Y-coordinate. <b>Result = 6.0000</b>