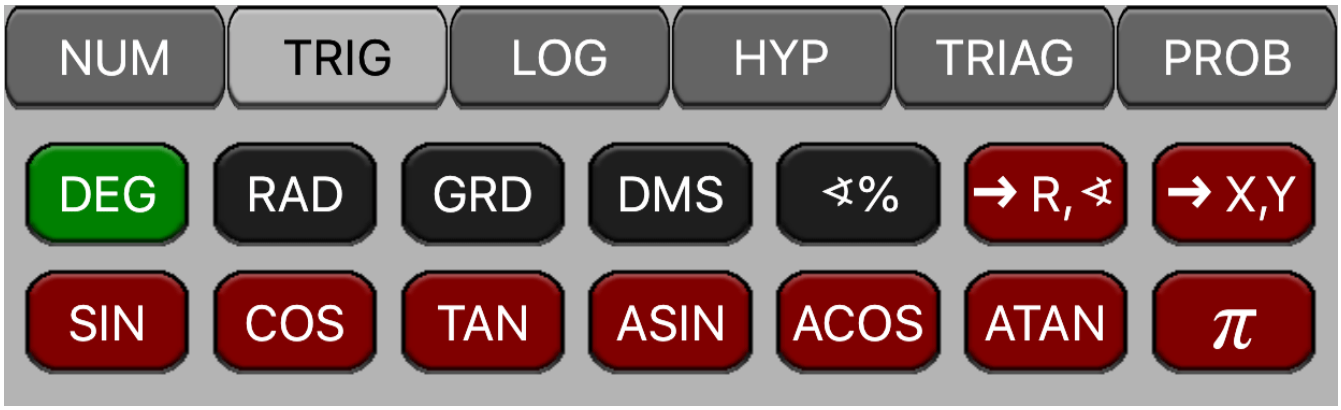
# Trigonometry Menu

This tool implements the common trigonometric functions to the RLM-10BII. To show it, select the "**Math**" menu button from the main menu, and select the "**TRIG**" tap option.




The calculation of trigonometric functions and Polar-Rectangular conversions are performed accordingly to the selected Angle Mode.

**Example 1: Trigonometric functions**

| Operation | Keystrokes | Display |
|---|---|---|
| Sine of 33.5º | "33.5" **[DEG] [SIN]** | **0.5519** |
| Cosine of π/3 rad | **[π] [÷]** "3" **[=] [RAD] [COS]** | **0.5000** |
| Tangent of 78 grad | "78" **[GRD] [TAN]** | **2.7776** |
| Arc-Sine of 0.7982 in rad | "0.7982" **[RAD] [ASIN]** | **0.9243** |
| Arc-Cos. of 0.2437 in grad | "0.2437" **[GRD] [ACOS]** | **84.3278** |
| Arc-Tangent of 0.4567 in º | "0.4567" **[DEG] [ATAN]** | **24.5462** |

**Example 2: Polar <-> Rectangular**
Convert the rectangular coordinate (10.0, 5.0) to polar coordinates. Express the angular result in Degrees.

| Keystrokes | Description |
|---|---|
| Type “5” **[INPUT]** | Type the Y-coordinate and the calculator’s **[INPUT]** key to enter it. |
| Type “10” | Type the X-coordinate. |
| **[DEG]** | Set the Angular mode to Degrees. |
| **[ → R,∢ ]** | Calculate the radius and angle.<br>Displays the radius. **Radius = 11.1803** |
| **[↴] [SWAP]** | Displays the angle. **∢ = 26.5651** (Deg) |

**Example 5:** Convert the polar coordinate (12.0 , ∠30.0º) to rectangular coordinates.

| Keystrokes | Description |
|---|---|
| Type “30” **[INPUT]** | Type the Angle and the calculator’s **[INPUT]** key to enter it. |
| Type “12” | Type the Radius. |
| **[DEG]** | Set the Angular unit to Degrees. |
| **[ → X,Y ]** | Calculate the X & Y coordinates.<br>Displays the X-coord. **X = 10.3923** |
| **[↴] [SWAP]** | Displays the Y-coord. **Y = 6.0000** |