## Trigonometry \& Hyperbolic Worksheet

| DEG > | SIN | COS |
| :---: | :---: | :---: |
| $\pi$ | $\mathrm{SIN}^{-1}$ | $\mathrm{COS}^{-1}$ |
| TAN |  |  |
| TOG | $10^{\wedge} \mathrm{X}$ | TAN |
| LN | EXP |  |
| R! | RND | INTG |
|  | FRAC |  |

This worksheet provides trigonometric, logarithmic and other common mathematical functions to the displayed number.

| $\begin{gathered} {[\mathrm{DEG}>]} \\ {[\pi]} \\ \hline \end{gathered}$ | Set the current angular unit (Decimal degrees, radians, gradians, degree-minute-seconds or slope percent). <br> Enter the value of pi into the calculator. |
| :---: | :---: |
| $\begin{gathered} {[\text { SIN ] }} \\ {\left[\text { SIN }^{-1}\right]} \end{gathered}$ | Calculates the Sine of the displayed number. Calculates the Inverse Sine of the displayed number. |
| $\begin{aligned} & {[\mathrm{COS}]} \\ & {\left[\mathrm{COS}^{-1}\right]} \end{aligned}$ | Calculates the Cosine of the displayed number. Calculates the Inverse Cosine of the displayed number. |
| [ TAN ] <br> [ TAN ${ }^{-1}$ ] | Calculates the Tangent of the displayed number. Calculates the Inverse Tangent of the displayed number. |
| $\begin{aligned} & {[\text { LOG ] }} \\ & {\left[10^{\wedge} \mathrm{X}\right]} \end{aligned}$ | Calculates the Common logarithm (base 10). Calculates the Common Antilogarithm (10x). |
| $\begin{gathered} {[\mathrm{LN}]} \\ {[\mathrm{EXP}]} \end{gathered}$ | Calculates the Natural logarithm. <br> Calculates the Natural Anti-logarithm or exponential. |
| [ N! ] <br> [ RND ] <br> [ INTG ] <br> [ FRAC ] | Factorial of the displayed number. <br> Rounds the displayed number to the actual $\mathrm{N}^{\circ}$ of decimals. Integer part of the displayed number. Fractional part of the displayed number. |

The calculation of trigonometric functions are performed accordingly to the selected unit (DEG, RAD, GRD, DMS or $\Delta \%$ ).

The following examples assumes 4 decimals display setting.

## Example: (Trigonometric Functions)

| Calculation | Keystrokes | Result |
| :--- | :---: | :---: |
| Sine of 33.5 degrees | 33.5 [ DEG ] [ Sin ] | $\mathbf{0 . 5 5 1 9}$ |
| Cosine of 0.25 radians | 0.25 [ RAD ] [ Cos ] | $\mathbf{0 . 9 6 8 9}$ |
| Tangent of 78 gradians | 78 [ GRD ] [ Tan ] | $\mathbf{2 . 7 7 7 6}$ |
| Arc-Sine of 0.7982 in radians | $0.7982[$ RAD ] [ Sinr $]$ | $\mathbf{0 . 9 2 4 3}$ |
| Arc-Cos. of 0.2437 in gradians | 0.2437 [ GRD ] [ $\mathrm{Cos}^{-1}$ ] | $\mathbf{8 4 . 3 2 7 8}$ |
| Arc-Tangent of 0.4567 in degrees | 0.4567 [ DEG ] [ $\mathrm{Tan}^{-1}$ ] | $\mathbf{2 4 . 5 4 6 2}$ |

## Example: (Logarithmic Functions)

| Calculation | Keystrokes | Display |
| :--- | :---: | :---: |
| Logarithm base 10 of 2.5 | $2.5[$ LOG ] | $\mathbf{0 . 3 9 7 9}$ |
| Antilogarithm base 10 of 3.56 | $3.56\left[10^{\wedge} \mathrm{X}\right]$ | $\mathbf{3 , 6 3 0 . 7 8 0 5}$ |
| Natural Logarithm of 68.0 | $68[\mathrm{LN}]$ | 4.2195 |
| Exponential of 4.6 | $4.6[$ EXP ] | $\mathbf{9 9 . 4 8 4 3}$ |

Example: (Other Functions) Assumes "Number Format" set to "ALL" in the calculator's "General Settings".

| Calculation | Keystrokes | Result |
| :--- | :---: | :---: |
| Factorial of 15 | $15[\mathrm{~N}!]$ | $\mathbf{1 , 3 0 7 , 6 7 4 , \mathbf { 3 6 8 , 0 0 0 }}$ |
| Integer part pi | $[\pi][$ NTG $]$ | $\mathbf{3}$ |
| Fractional part of pi | $[\pi][$ FRAC $]$ | $\mathbf{0 , 1 4 1 5 9 2 6 5 3 5 8 9 7 9}$ |
| Round pi | $[\pi][$ RND $]$ | $\mathbf{3 . 1 4 1 6}$ |

