

3.7 Degrees and radians

3.7.1 Switch the calculator to degrees or radians mode

To switch from radians to degrees mode, press node, highlight the correct mode (4th line) and press network.

3.7.2 Display exact value of an angle in radians

Suppose you have to compute the exact value in radians of $\sin^{-1}(\frac{1}{2})$ on your calculator.

- ① Put your calculator in radians mode since you want the result in radians (see 3.7.1)
- 2 compute sin-1(1/2)
- 3 Divide the result by π (press \vdots , and $\overset{\pi}{\triangleright}$)
- ④ Press alpha, y= , ▶F◀▶D, entry solv

The result of the steps should look like this:

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Since you divided the result by π in the process, the final result has to be multiplied by π again. Thus,

$$\sin^{-1}\left(\frac{1}{2}\right) = \frac{\pi}{6} \text{ rad.}$$

3.7.3 Add degrees and radians

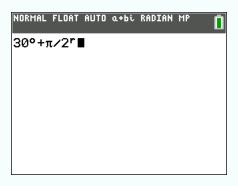
Suppose you have the following computation to do:

$$60^{\circ} + \frac{\pi}{2}$$
 rads, answer in radians

① Put your calculator in RADIAN mode since you want the result in radians (see 3.7.1)



② Press 2nd, press 2nd, for access the units of (for degrees) and of (for radians). Enter the following in your calculator:



" \mathbf{r} " is not mandatory here because the calculator is in $\begin{tabular}{c} \mathbf{RADIAN} \end{tabular}$ mode

Press entry solve

The result should be 2.09 rad (rounded) or $\frac{2\pi}{3}$ rad (see 3.7.2 to display the result in terms of π)