3.7 Degrees and radians

3.7.1 Switch the calculator to degrees or radians mode

To switch from radians to degrees mode, press quit mode, highlight the correct mode (4th line) and press entry solve enter.

3.7.2 Display exact value of an angle in radians

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

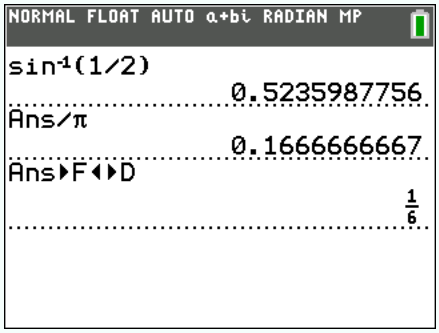
① Put your calculator in radians mode since you want the result in radians (see 3.7.1)

② compute $\sin^{-1}(1/2)$

③ Divide the result by π (press e M ÷, 2nd and π H ^)

④ Press A-lock alpha, stat plot f1 y=, ▶F◀▶D, entry solve enter

The result of the steps should look like this:



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

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

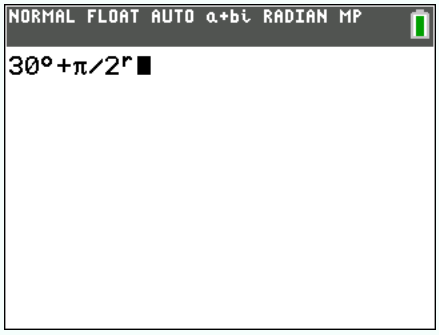
3.7.3 Add degrees and radians

Suppose you have the following computation to do:

$$60° + \frac{\pi}{2} \text{ rads, answer in radians}$$

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

② Press 2nd , angle B apps to access the units ° (for degrees) and ʳ (for radians). Enter the following in your calculator:



"ʳ" is not mandatory here because the calculator is in RADIAN mode

Press entry solve enter .

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)