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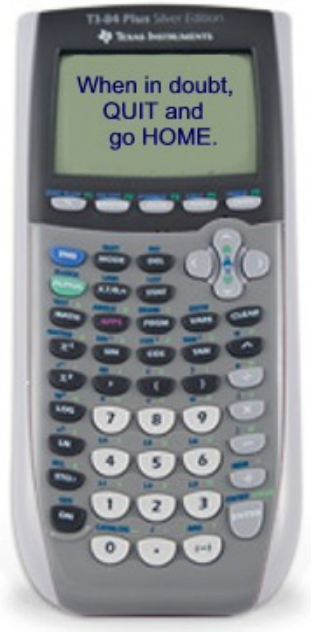
TI-83+/84+ Quick Reference Sheet

Trigonometry Section



Check your MODE!

Radians/Degrees:

Degrees to radians: mult. by $\frac{\pi}{180}$

Radians to degrees: mult. by $\frac{180}{\pi}$

To quickly change to degrees while in radian mode, use the degree symbol. 2^{nd} ANGLE - #1 º

Reciprocal Functions:

1. $\csc(x)$ uses $\frac{1}{\sin(x)}$
2. $\sec(x)$ uses $\frac{1}{\cos(x)}$
3. $\cot(x)$ uses $\frac{1}{\tan(x)}$

To Graph Trig. Functions:

1. Enter equation in Y=.
2. Use ZOOM #7 (scales $\frac{\pi}{2}$ or 90º)

On 83+ or older OS, the graphs such as $\tan(x)$ show vertical lines. While they appear to be asymptotes, they are not. They are "connected mode".

Verify Trig Identities:

Place the left side of the equation in Y1 and the right side in Y2. Set the mark in front of Y2 to "bubble". Graph. If the equation is true, the "bubble" will run on top of the first graph. Also check TABLE listings.

Inverse Functions:

Remember: $\arcsin(x) = \sin^{-1}(x)$

The inverse reciprocals need special attention:

$$\csc^{-1}(x) = \sin^{-1}\left(\frac{1}{x}\right) \qquad \sec^{-1}(x) = \cos^{-1}\left(\frac{1}{x}\right)$$

$$\cot^{-1}(x) = \begin{cases} \tan^{-1}\left(\frac{1}{x}\right);\ x > 0 \\ \tan^{-1}\left(\frac{1}{x}\right) + \pi;\ x < 0 \\ \frac{\pi}{2};\ x = 0 \end{cases}$$

The graphs of the inverse functions will show the restricted domains that ensure they are functions.

Probability section:

Combination/permutation:
Enter first value then go to MATH → PRB

"AT MOST"
binomcdf(*n, p, r*)

"AT LEAST"
1-binomcdf(*n, p, r*-1)

Using same *n, p, r* parameters

Bernoulli Trials:

"EXACTLY"

The formula: ${}_nC_r \bullet p^r \bullet q^{n-r}$ can be done using **binompdf(**

Go to: DISTR (2^{nd} VARS), #0 binompdf

The parameters are:

binompdf (*number of trials, probability of occurrence, number of specific events*)

${}_6C_3 \bullet (.5)^3 \bullet (.5)^{6-3}$ becomes binompdf(6, .5, 3)