

Calculator ID \#:
Choose $2^{\text {nd }}$ MEM, \#1 About
ID****_********

## TI-83+/84+ Quick Reference Sheet

## Algebra 2 Level

## To Graph Lines (functions):

1. Enter equation in $\mathrm{Y}=$.
2. Use ZOOM \#6 (will give standard $10 \times 10$ window).
3. Use GRAPH to display graph.
4. Use WINDOW (to create your own screen settings).
5. Use TRACE to move spider on graph - arrow up/down between graphs

## Logs and Exponents:

1. The LOG key is log base 10 .
2. To enter: $\log _{4} 64$ use $\frac{\log 64}{\log 4}$
3. $27^{\frac{1}{3}}$ is $27^{\wedge}(1 / 3)$ remember ( )

## To Find Intersection Pts:

1. Graph both equations.
2. Use CALC menu (2 $2^{\text {nd }}$ TRACE)

Choose \#5 Intersect
3. Move near the intersect location.
4. Simply press $<$ ENTER $>3$ times to reveal the answer.
If you are looking for more than one intersection point, you must repeat this process.

## Summations: $\quad \sum_{k=2}^{7}(2 k+2)$

Enter $\operatorname{sum}(\operatorname{seq}(2 x+2, x, 2,7,1)$

- $2^{\text {nd }}$ STAT(LIST) - MATH - \#5 sum
- $2^{\text {nd }}$ STAT(LIST) - OPS - \#5 seq

The format for seq: expression, variable, starting value, ending value, increment.

To see $\sqrt{-25}=5 i$, use $a+b i$ mode.

## To Get Statistical Information:

## Check Inverse: <br> Enter your algebraic inverse in Y1. Graph. Use DRAW \#8DrawInv to verify it is correct.

## To Get Scatter Plots and Regressions

(Linear, Quadratic, Exponential, Power, etc):

1. Place data in Lists: STAT $\rightarrow$ EDIT
2. Graph scatter plot: STAT PLOT \#1 <ENTER> Choose ON. Choose the symbol for scatter plot, choose $\mathrm{L}_{1}, \mathrm{~L}_{2}$, choose mark
3. To graph, choose: ZOOM \#9
4. To get regression equation: STAT $\rightarrow$ CALC \#4 Lin $\operatorname{Reg}(a x+b)$ ( or whichever regression is needed)
5. On Home Screen: $\operatorname{LinReg}(a x+b) \mathrm{L}_{1}, \mathrm{~L}_{2}, \mathrm{Y}_{1}$
6. to see graph - GRAPH

To get $\mathrm{Y}_{1}$ on the calculator screen:
VARS $\rightarrow$ Y-VARS Choose FUNCTION, Y 1

## Functions:

$Y_{1}=f(x)$ and $Y_{2}=g(x)$
$(f+g)(x) \rightarrow Y_{3}=Y_{1}+Y_{2}$
$(f-g)(x) \rightarrow Y_{3}=Y_{1}-Y_{2}$
$(f \bullet g)(x) \rightarrow Y_{3}=Y_{1} Y_{2}$
$(f / g)(x) \rightarrow Y_{3}=Y_{1} / Y_{2}$
Composition:
$(f \circ g)(x) \rightarrow Y_{3}=Y_{1}\left(Y_{2}\right)$

