## Introduction to the TI-83/84 Calculator

Directions: Read each statement or question. Follow the directions each problem gives you.

## Basic Buttons

$1^{\text {st }}$ Function Keys: Normal buttons
$2^{\text {nd }}$ Function Keys
Top Left of Calculator (Color: ___

Alpha Keys:
Top Left of Calculator (Color: ___ )


1. Find the ON key.
a. Where is it located?
b. $1^{\text {st }}$ or $2^{\text {nd }}$ function?
2. Find the Off key.
a. Where is it located? $\qquad$ b. $1^{\text {st }}$ or $2^{\text {nd }}$ function?
3. Find the ENTER button
a. Where is it located? $\qquad$ b. $\quad 1^{\text {st }}$ or $2^{\text {nd }}$ function?
4. Turn on the calculator. Now turn it off.

What are the buttons to TURN IT OFF: $\qquad$
5. Note there are four arrow keys.
a. Where are they located?
b. These keys are similar to the keys on a computer.
c. Let's explore these:


- Turn the calculator on
- Type the number 35
- Press the left arrow once so that the cursor is blinking over the 5
- Press the number 7. The number on the screen is now $\qquad$ .
- Press +68 and ENTER. What is on the screen now? $\qquad$


## Edit Keys

There are two edit keys that you should be familiar with: DEL and CLEAR

1. Find DEL on the calculator.
a. Where is it located?
b. $1^{\text {st }}$ or $2^{\text {nd }}$ function?
i. Type 7528.
ii. Move the cursor so that the 5 is blinking
iii. Press DEL. Press ENTER. What number is now on the screen? $\qquad$
2. Find CLEAR on the calculator.
a. Where is it located? $\qquad$ b. $1^{\text {st }}$ or $2^{\text {nd }}$ function?
i. Type 5678
ii. Press CLEAR. What happened? $\qquad$
3. What is the difference between DEL and CLEAR?

DEL button $\qquad$ CLEAR
button $\qquad$

Situations:

| CLEAR or DEL: | Change $5+7$ to $5-7$ |
| :--- | :--- |
| CLEAR or DEL: | Change 5625 to 9812 |
| CLEAR or DEL: | Change 755555555555 to 855555555555 |

## ALPHA Keys

1. Find the ALPHA Key
a. Press ALPHA and 4 then ALPHA and multiplication sign $(x)$ : $\qquad$
2. Find the A-Lock Key, what keys do you need to press to use to activate A-Lock:
3. The number zero ( 0 ) is a space bar
4. Clear your calculator screen and spell out :

## Arithmetic Keys

What do these symbols mean?


Type the following into your calculator: 56(-)8 =

Write what appears on your screen in the box below.

-Syntax Error means that something is typed that the calculator does not understand -NEGATIVE and MINUS are NOT the same buttons

Practice: Type the following into your calculator
a. $8+56=$ $\qquad$
b. $8-56=$ $\qquad$
c. $8+(-) 56=$ $\qquad$ d. $8 \times 56=$ $\qquad$
e. $(-) 8-56=$ $\qquad$ f. $8-(-) 56=$ $\qquad$
g. $56 \div 8=$ $\qquad$
h. $(-) 56+8=$ $\qquad$
i. $\frac{4}{2}=$ $\qquad$ j. $\frac{5}{10}=$ $\qquad$

## Graphing

Before you do anything, press the following keys: (Clear the RAM)


To plug in the equation for graphs and tables:


To graph:


For tables:


Graphing Inequalities:
Which calculator are you using?
TI-83
TI-84
TI-Nspire
TI-89
Write down the instructions for your particular calculator here: (make sure to include what the keys look like and which order to push them in.)

## Math Basics

Plotting Coordinates $(x, y)$
$(1,2) \quad(-4,-3)$
$(2,-2) \quad(-1,0)$


Plot each point, and then draw a line to the next point
$(-2,4)(1,4)(2,1)$
$(1,1)(3,-2)(2,-2)$
$(4,-6)(-1,-2)(0,-2)$
$(-2,1)(-1,1)(-2,4)$


## Graphing Systems

Using your calculator hit the $y=$ button. Enter the following system in your calculator:


$$
\begin{aligned}
& y_{1}=2 x-3 \\
& y_{2}=\frac{1}{2} x+2
\end{aligned}
$$

Then hit GRAPH. Once the function has graphed press $240+$ TRACE +5 then press ENTER three times.

Write the intersection here: $\qquad$ ,

Do the same for the following systems if the intersection doesn't show in the window change the WINDOW settings.

1. $\left\{\begin{array}{l}y=5 x-4 \\ y=\frac{1}{3} x+2\end{array}\right.$
2. $\left\{\begin{array}{c}y=-7 x+2 \\ y=\frac{1}{8} x-1\end{array}\right.$
3. $\left\{\begin{array}{c}y=4 x-.25 \\ y=\frac{2}{5} x+4\end{array}\right.$

## Interesting Calculator Facts:

## Exit:

How you can exit out of ANY screen back to the main screen: $\qquad$

## Fractions:

How can you make the answers fractions?

1. Hit the MATH menu: then select $>$ Frac
2. OR change the mode: $\qquad$
How to type a fraction $\frac{3}{5}$ in your calculator:
STO >

How to make a variable equal a specific Value:
Press: 5 STO> $\underline{X}, T, \theta, n$ or a different letter ENTER
Now type $6 \underline{X}, T, \theta, n$ or a different letter -4 ENTER write the answer: $\qquad$
Use the above method to do the following:

$$
f(x)=-3 x+4-2 x^{2}
$$

a) $f(-2)=$
b) $f(3)=$
c) $f\left(\frac{2}{3}\right)=$
d) $f(0)=$

## Insert:

If you have forgotten something in an equation what could you use? $\qquad$
Type: 6-2*4-3
Now without clearing the whole thing change it to 6-17-2*4-3 what is the answer:

