

MATH 1310 Programming Project #1

You have the whole class period to work on the project with your group. Write your answers on a separate paper. You are required to use your own calculator and turn in your own paper. Be sure to answer all of the questions asked.

<u>Command</u>	<u>Location on Calculator</u>
Disp	PRGM—I/O
Prompt	PRGM—I/O
CIDrw	GRAPH—DRAW
DrawF	GRAPH—DRAW
FnOff	GRAPH—VARS
→	STO
x	x-VAR

1. Enter the following program on your calculator and run it several times with different inputs. What exactly does this program do? Be specific. What do the commands Prompt and DrawF do? You may consult your calculator's manual if you wish. Note: the first two lines are there to prepare the calculator for graphing. We wish to find out more about these commands later.

```
: CIDrw  
: FnOff  
: Prompt M  
: Prompt B  
: DrawF M*x+B
```

2. Enter the program below into your calculator. After running it a few times, answer the questions that follow.

```
: Prompt A  
: Prompt B  
: A→B  
: Disp A  
: Disp B
```

- a. What happens when you run this program? Why? Be specific.
- b. Explain in detail what each line of the program does.

For each of the next four parts, replace line 3 in the program with the given command or commands. What happens to the program? Why does it happen?

- c. : B→A
 - d. : A+B→B
 - e. : B→A+B
 - f. : A+B→B
: A+B→B
3. Write a program to do the following: Prompt the user for the x and y -coordinates of two points; calculate and display the slope and y -intercept of the line which passes through the two points. Write your program down on the paper you are turning in. Be sure to test it to make sure it works.
4. Modify your program from above so that it actually graphs the line instead of displaying the slope and y -intercept. Write down this version on your paper also.