## Matlab review Inlab 13 Due in lab April 14<sup>th</sup> or 15<sup>th</sup>

Write the following Matlab code:

- 1. Write a program which graphs the formula  $y=(x+2)^3+x$  where x varies from -10 to 10.
- 2. The Fibonacci numbers are the values 0, 1, 1, 2, 3, 5 etc. where each successive number is the sum of the two values proceeding it. Write a function called "Fib" which takes a single positive integer N and returns the N<sup>th</sup> Fibonacci number. (Fib(0)=0, Fib(1)=1, Fib(2)=1, Fib(3)=2 etc.) Supply a main program uses the Fib() function to graph the first 20 Fibonacci numbers vs. their rank. See <u>http://en.wikipedia.org/wiki/Fibonacci\_number</u> for more details on Fibonacci numbers.
- 3. Write a function named "noNegOne" which takes a row vector as an argument and returns a "1" if the vector has no negative numbers in it and a "0" if it does have one or more negative number. The row vector can be of any size. Supply a main which calls it twice, once with a vector that has negative numbers, and once without negative numbers.