Homework #6

This assignment is not for a grade. These problems would all be fair exam questions, but some of them are much harder than others. Answers will be posted on Tuesday.

1. Write a MATLAB *function* named "max3" which takes three integer scalar arguments and returns a value 3 times the largest one.

Write a MATLAB *function* named "close" which takes two arguments. The first will be a row vector, the second a scalar. The function is to return a scalar. It is to return the value in the input vector which is closest to the scalar. In the event of a tie, any if the closest values may be returned.
 a=[2 4 5 1];
 c=close(a, 7)
 would cause "c" to be 5.

Write a MATLAB function named "cumulative" which takes a single row vector "X" as an input and returns a row vector "Y". It should be the case that Y(i) is equal to the sum of all X values with indices less than or equal to i. So if X=[3 1 4 -1 5] then Y should be [3 4 8 7 12]

- 4. Write a function named "initM" which takes no arguments and returns a 10 by 10 matrix with the following properties:
 - Set the upper right-hand corner (5 by 5) to 2s.
 - Set the lower left-hand corner to 4s.
 - Set 2 by 2 square in the upper left-hand corner to 5s.
 - Set all edges not already set to be 6s.
 - Set the rest of the matrix to be 0's.

Hints: Don't do things in this order and look at inlab 12!