1043 problems on Arrays

1. Write a code using for loops to add up and average the even locations in the array int A [500].

2.a) declare 2 arrays A and B, each having 100 integers.
    b) Using for loops, write code to read data into array A, filling all 100 locations. Then fill B using the data in A so that each element in B is 10 greater than the element in A. For example: if A[1] = 40 then B[1] = 50.

3.a) Declare an array A with may contain 10 integers and an array B which may contain 10 reals.
    b) Read data into A filling it. Fill B with the square roots of the corresponding elements of A.

4. Fill an array int A [100], not by reading, but with multiples of 10 beginning with 10.

5. Write a function which accepts as input an array of 10 integers and a value X. It returns to the calling routine the index of the first value in the array that is greater than X. If none are greater, it returns -1.

6. Write a function which accepts as input an array of 100 real values. It moves the largest value in the array to location 0 and the smallest value in the array to location 99. It returns the modified array to the calling routine.

7. Assume int A[200], B[200] are declared and A already is filled with data. Fill B with the data from A, but in the opposite order.

8. Write a single function to determine both the minimum and maximum values in an integer array containing exactly 100 integers. Return both to the calling routine.

9. Assume int A [200]. Read data, filling A, until A is completely full or a negative data value is encountered. Then print out the number of items actually placed in A.

Assume int X [25] [35], Y[100][100].
10 a) Read data into X, filling it by rows.
    b) Read data into X, filling it by columns.

11. Write a function which will accept as input array X, and returns the number of the row whose elements sum to the largest value.

12. Add the items of the main diagonal of Y.

13. Find and print the largest array element that lies in the main diagonal of Y. Also print the indices of the largest value.