CS 1200 Spring 15 First Array Assignment

You must do this assignment correctly as described below. If you do not follow the directions or break the rules you will receive a 0 score.

Simulation of checking tic-tac-toe board for wins by counting X and O in rows, columns and diagonals.

in a loop for array sizes 3X3, 4X4, 5X5

Fill the array of characters with either X or O.
Print the array
Count number of X and O in each row, each column and each diagonal and print the totals.
Extra credit (10%) while printing counts print wins for X and/or O

You must correctly use the variables as given below.
You must use the outer for loop that varies the size of the array.
That size must control the loops that fill, print and count.
You must use loops to count the X and O in each direction.

```c
int main(){
    int row, col, size, Xcount, Ocount;
    char array[5][5];
    srand((unsigned)time(NULL)); // seedy stuff

    for(size = 3; size <= 5; size++) {
        // fill the array
        for(row = 0; row < size; row++)
            for(col = 0; col < size; col++)
                array[row][col] = (rand() % 2) == 0 ? 'X' : 'O';
        // print array
        // loops to count per row and
        // print each row's counts
        // loops to count per column and
        // print each column's counts
        // single loop to count top left to bottom right
        // print diagonal's counts
        // single loop for to count other diagonal
        // print other diagonal's counts
    } // end outer array size loop

    Hints:
    Do it for one size array first. Do each part and test before moving on to the next. Get print array working, then rows etc.
    
    Don’t forget to reset the Xcount and Ocount to 0 after each row or column part of the loops.
    
    Once it works for size 3 do it for 3, 4, and 5 using the outer for loop.