Assignment for 19.10.16

Write program, which reads array $x_0 \ldots x_{n-1}$

1. Write a program using pointer to get $x_0 * (x_0+x_1) * (x_0+x_1+x_2) * \ldots * (x_0+x_1+\ldots+x_{n-1})$.
2. Write a program using pointer to get $x_{n-1} * (x_{n-2}+x_{n-1}) * (x_{n-3}+x_{n-2}+x_{n-1}) * \ldots * (x_0+x_1+\ldots+x_{n-1})$

Write program, which reads two arrays $x_0 \ldots x_{n-1}$ and $y_0 \ldots y_{n-1}$. The program outputs the value of

3. $x_0*(y_0+y_1+y_2+ \ldots+y_{n-1}) + x_1*(y_1+y_2+y_3+ \ldots+y_{n-1}) + x_2*(y_2+y_3+y_4+ \ldots+y_{n-1}) + \ldots+ x_{n-1}*y_{n-1}$
4. $x_0*(y_0+y_1+\ldots+y_{n-1}) + (x_0+x_1)*(y_1+\ldots+y_{n-1}) + (x_0+x_1+x_2)*(y_2+\ldots+y_{n-1}) +\ldots+ (x_0+x_1+\ldots+x_{n-1})*y_{n-1}$
5. $x_0*(y_1+y_2+\ldots+y_{n-1}) + (x_0+x_1)*(y_2+\ldots+y_{n-1}) + (x_0+x_1+x_2)*(y_3+\ldots+y_{n-1}) +\ldots+ (x_0+x_1+\ldots+x_{n-2})*y_{n-1}$
6. Write program to store first 100 Fibonacci numbers in an array and then add all the numbers using pointer.
7. Given an array of integer numbers and then of sort it. Search for a particular item and display the position. Write the program using pointer.
8. Write a program using pointer to add two matrices and display the elements of the new matrix after addition using pointer variable.
9. Write a program using pointer to multiply two matrices and display the elements of the new matrix after multiplication using pointer variable.
10. Find the transpose of a matrix using pointer.

[For accessing 2D array – indexing a[i][j] is same as

$$*(a[i]+j)$$
$$(*(a+i))[j]$$
$$*((*(a+i))+j)$$
$$*(\&a[0][0]+ n*i + j) \text{ where n is the number of element in each row}]$$

11. Write a C program that counts total number of characters, words, white-spaces and lines in a given text file using pointer.
12. Make a cypher text using pointer where the odd placed elements will be replaced by previous character and the even placed element by next character.
13. Make a cypher text using pointer where the odd placed elements will be replaced by uppercase character and the even placed element by lowercase character keeping blank space as it is.