

York University
Dept. of Computer Science and Engineering
CSE 2031 Software Tools
Exercise 2

1- Rewrite the following function using pointer arithmetic

```
void my_fun( int a[], int n ){
    int i, tmp1, tmp2;

    tmp1 = a[n-1];

    for ( i=0; i<n-1; i=i+2 ){
        tmp2 = a[i];
        a[i] = tmp1;
        tmp1 = a[i+1];
        a[i+1] = tmp2;
    }
}
```

What does that function do?.

2- Write a C program similar to the UNIX sort. The program should receive 2 file names as input argument, one is the file to sort, and the other is the name of the sorted version of the file. You have to make some assumptions about the size of the file to be sorted.

3- Write a program that reads a text file and print it on the screen in exactly the same format except that it will capitalize the first word at the beginning of any sentence.

4- Write a program to calculate and display the average of its arguments, for example if

```
a.out 6 7 2.3
The average is 5.1
```

There is no restriction on the number of arguments.

5- Write a program that reads a n-by-n matrix of integers. The program should sort every row in a descending order such the max. number in the i^{th} row is in location $a[i][i]$, then the rest of the row will continue in $a[i][i+1]$... wrapping to $a[i][0]$, ...