C Language Programming: Homework #6
Assigned on 11/14/2017(Tuesday), Due on 12/05/2017(Tuesday)

Write a recursive program combination(A, n, k) that you can print out all the combinations of k numbers out of n numbers stored in an array A. For example, if there are 4 numbers (10, 21, 35 , 41) stored in an array A[4], calling this recursive function combination(A, 4, 2) can get a result of (10, 21), (10, 35), (10, 41), (21, 35), (21, 41), and (35, 41), or calling combination(A, 4, 3) can get a result of (10, 21, 35), (10, 21, 41), (10, 35, 41) and (21, 35, 41).

1. Put all these codes in one file and use *command argument list*, *main(int argc and char *argv[])* to input n numbers ad the value k
   .
2. The input and result should be output to a file.

Requirement:

(1) Read *n* from **argv[1]**, *k* from **argv[2]**.
(2) Read *n* numbers from keyboard which stored in array A[n].
(3) Ouput n, k, array A[n] and result to a file name “output”.

Example:

```
>   ./hw6   4    2
10  21  35  41
```

(Find all the combinations of 2 numbers out of 4 numbers from [10, 21, 35, 41] .)

Command line:

```
>   ./hw6   [n] [k]
```

Output:

A file named “output” which include results.

(Note: **Don’t** print any **unnecessary** message to output file, thank you.)

for example:

```
> ./hw6      4    2
10  21  35  41
```

content in “output” will be

```
>    cat output
4    2
10  21  35  41

10  21
10  35
10  41
21  35
21  41
35  41
```

Score:

Requirement (1), (2), (3): 20%

Combination result: 60%

File I/O and File Format: 10%

Report: 10%