Algorithm Design and Programming II
Lab 4 (15 Points)

Objectives:

- Learn more about pointers and arrays

Description:

- Modify your functions from the pre-lab 4: ***createIntArray***, ***getArraySize***, and ***freeArray***.
- In ***createIntArray*** function, create an array of integers where 1 ≤ array[i] ≤ 20, using ***rand*** function.
- Store maximum value of the array at "array[-1]", store the size of the array at "array[-2]", and store the elements starting from "array[0]".

After updating your createIntArray(), your array should look like below:

array[-2]	array[-1]	array[0]	array[1]	array[2]	array[3]	…	array[18]	array[19]
Size	**Max_Value**							

Main function steps:

- Call ***createIntArray*** function.
- Call ***getSizeArray*** and assign its return value to a variable called ***size2***
- Print your array, array size, and a maximum integer in the array as shown in **Example output** below.
- Free the created array using your ***freeArray*** function.

Every user-defined function must have a comment describing:

- What function does;
- What parameter values are;
- What value it returns.

Example output:

```
Please enter an array size: 8

Array: [  11  12  15  1  6  9  13  12  ]

My array size from getArraySize() is 8.

Max value: 15
```

Function Prototypes:

- int* **createIntArray**(int arraySize);
- int **getArraySize**(int* array);
- void **freeArray**(int* array);

Grading Criteria:

- Main program: 3 points
- createIntArray function: 6 points
- getArraySize function: 3 points
- freeArray functions: 3 points

Note:

- If your code does not compile with **–Wall** and **–Werror**, you will receive a **zero** for this assignment.
- You need to finish at least **three** peer reviews within three days of this lab. Otherwise, you will get a 20% penalty.
- You will lose points if you don't have enough comments.