


## National University of Computer and Emerging Sciences, Lahore Campus

	Course Name:	Programming Fundamentals	Course Code:	CS 118
	Program:	BS(CS)	Semester:	Fall 2018
	Duration:	2 hr	Total Points:	50
	Paper Date:	Thursday, 25 <sup>th</sup> Oct 2018	Weight	25
	Section:	C, D	Page(s):	2
	Exam Type:	Lab Mid		

**Instruction/Notes:** Taking some illegal online/offline help (i.e. cheating) might earn you an **F** grade in the entire course.

### Question 1:

Write a program that takes in an array named myArray of size 15. The value of each element in myArray should be less than 10. Your task is to rotate the elements of myArray to left.

You should also ask user how much rotation is required (i.e. rotation size) and rotate your array according to user's entered value.

### For Example

#### Left:

Number: 12345  
Rotate Size: 1  
Rotated Left: 23451

Number: 12345  
Rotate Size: 2  
Rotated Left: 34512

### Question 2:

**15 marks**

Write a program that can find intersection of two initially populated arrays. Declare two **int arrays** A1 and A2 of size 10, now find the intersection between these two arrays (i.e. common elements in both arrays) and place the common values in a third **array A3**. Note that the arrays A1 and A2 are presorted and you have to use single loop.

### For Example:

A1: 1 3 6 9 10  
A2: 2 3 10 12 14

**Output:**

A3: 3 10

A1: 2 7 8 15 87  
A2: 15 63 71 87 91

**Output:**

A3: 15 87

*Note: If there is no element in intersection then your program must display the message "intersection is null"*

### Question 3:

**10 marks**

Write a function that takes in a 6-digit integer and returns true if the number is equal to its reverse, it should return false if the condition is not satisfied. The main should then write the number into a file and tells if it is palindrome or not. The function should be called four times in main and each time the output must be written in file in appending mode. By the end of execution your **"output.txt"** should have four output lines written in it

### For Example:

**Input:**

Number1 : 123010  
Number2: 444444  
Number3: 101010  
Number4: 123321

**Output.txt:**

123010 is not palindrome  
444444 is palindrome  
101010 is not palindrome  
123321 is palindrome.

GOOD LUCK 😊