

## Assignment-2

1. Write a C program to check whether a circle can be drawn through three given points on the Cartesian plane.  
input: coordinates of the three points  
output: "yes" or "no" [1]
2. Find the minimum and the maximum among 3 integers using the ternary conditional operator.  
input : the three integers  
output: maximum of the three numbers: <max\_num>  
minimum of the three numbers: <min\_num> [2]
2. Write a C program that generates a random number between 5 and 10, using the "rand()" function in stdlib.h, and outputs 'a', 'b', 'c', 'd' with prob('a')=2/10, prob('b')=3/10, prob('c')=3/10, prob('d')=2/10 respectively.  
output: 10 numbers generated. DO NOT USE LOOPS. [3]
4. Write a program that reads a sequence of 10 integers (which can only be 0 or 1), and counts the number of occurrences of the sequence "0100". Note that overlapped sequences are allowed. DO NOT USE LOOPS.  
input : the ten integers  
output: number of times the pattern occurs minimum of the three numbers: <min\_num> [4]