# CSE 102 Structural Programming Language Sessional

Practice Problems (For section B2)

Subtopics: Data types, constants and variables, operators and expressions,

type conversion, branching, for loops.

1. Write a program that takes as input an integer n and prints out the sum of integers from 1 to n. Here, .
2. Know about precedence and associativity. (Page 372 of TYC book)
3. Comment about the output of the following code snippet.

|  |
| --- |
| int main(){  unsigned int i=10;  if(i>-1){  printf("Yes");  }  else printf("No");  } |

1. Write a C program that takes a real number and prints the ceiling of that number.
2. Write a C program that takes a real number and rounds the number and prints the rounded value.
3. Write a C program that takes a real number and prints the ceiling of that number up to n digits.
4. Assume that you are given 2 two-digit numbers. Read each of the digits as characters and print out the summation of the two numbers.
5. Write a C program print total number of days in a month using switch case.
6. Write a C program to check whether an alphabet is vowel or consonant using switch case.
7. Write a C program that takes as input the date of birth of two persons and prints weather the first person is older that the second one.
8. Write a C program that takes as input the x and y coordinates of 3 points. Your program should find out if we can draw a circle where one of the points is the center and the others are on the circle.
9. Write a program to determine the grade based on an input number. The grades chart is given below:

|  |  |
| --- | --- |
| Marks Obtained | Grade |
| 80 or above | A+ |
| 75 - 79 | A |
| 70 - 74 | A- |
| 65 - 69 | B+ |
| 60 - 64 | B |
| 0 - 59 | D |

1. Write a program that takes two integers x and n and computes .
2. Write a program to compute the factorial of a number n.
3. Write a program prints the results of the following series. Here, n is an input to your program,
4. Write a program to print the following pyramids with “\*” characters. Take the number of rows n as input.

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| N=5 | N=5 |

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| N=5 |