

SHEET :-3 Control Statement (Loops)

1.Write a program that takes a positive integer N as input from the user and prints all natural numbers from 1 to N, with each number followed by a space.

Input:- N = 5

Output:- 1 2 3 4 5

2.Write a program to print all Natural numbers from N to 1 where you have to take N as input from user.

Input:- N = 5

Output:- 5 4 3 2 1

3.Write a program to print all even numbers from 1 to N where you have to take N as input from the user.

Input:- N = 10

Output:- 2 4 6 8 10

4.Write a program to print all odd numbers from 1 to N where you have to take N as input from user.

Input:- N = 10

Output:- 1 3 5 7 9

5.Write a program to find sum all Natural numbers from 1 to N where you have to take N as input from user

Input:- N = 10

Output:- 55

6.You are given an integer A, you need to find and return the sum of all the even numbers between 1 and A. Even numbers are those numbers that are divisible by 2.

Input:- A = 5

Output:- 6

Explanation:- Even numbers between [1, 5] are (2, 4).

7.Take an integer A as input. You have to print the sum of all odd numbers in the range [1, A].

Input:- A= 4

Output:- 4

Explanation:- For A = 4, Odd numbers 1 and 3 lie in the range [1, 4]. Sum = 1 + 3 = 4.

8.Take integer N as input and Print the count of digits of that number.

Input:- N = 10101

Output:- 5

Explanation:- 10101 has 5 digits

9 .Take integers N as input. Your task is to calculate and print the sum of the digits of the given number N.

Input:- N = 1589

Output:- 23

Explanation:- For the number 1589, the digits are 1,5,8,9. The Sum(1589) = 1+5+8+9 = 23.

10.You are given an integer A as input and you need to determine whether it is a palindrome or not.A palindrome integer is one whose digits, when reversed, result in the same number.

For example, 121 is a palindrome because its reverse is also 121, but 123 is not a palindrome because its reverse is 321.Note: The given integer will not have any leading zeros.

Input:- A = 131

Output:- Yes

Explanation:- For A = 131, reverse(A) = reverse(131) = 131, which is same as A.

11.Take a number A as input, print its multiplication table having the first 10 multiples.

Input:-

3

Output:-

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3 * 1 = 3
3 * 2 = 6
3 * 3 = 9
3 * 4 = 12
3 * 5 = 15
3 * 6 = 18
3 * 7 = 21
3 * 8 = 24
3 * 9 = 27
3 * 10 = 30
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12.You are given two integers A and B. You have to find the value of A^B.

Input:- A = 2 , B = 3

Output:- 8

Explanation:- For A=2 and B=3, the value of $2^3 = 2 * 2 * 2 = 8$.