

## Lab 03: Assignment

1. Print 1 to n.
2. Print 2,4,6,8,10,...,n,
3. Print 1,3,5,7,9,...,n,
4. Print 1,2,4,8,16,32,64,...,n
5. Print n to 1
6. Observe the pattern and print 1,10,2,9,3,8,4,7,5,6 using for loop without pre-defining this sequence.
7. Observe the pattern and print 2,11,20,28,25,41,46,50,53,55,56 using for loop without pre-defining this sequence.
8. Print first n even numbers.
9. Print first n odd numbers.
10. Print first n natural numbers.
11. Print the total of 1 to n.
12. Print the total of  $1/2+2/3+...+(n-1)/n$ .
13. Print the total of  $1-2+3-4+5-6+7-8+9-10+...+n$ .
14. Print the total of first n even numbers.
15. Print the total of first n odd numbers.
16. print  $0.1+0.02+0.003+0.0004+0.000005$ .
17. Accept one number (atleast 4 digit number) from user and display Reverse of it.
18. Accept one number (atleast 4 digit number) from user and display sum of its digits.
19. Accept one number from user and display its factorial.
20. Accept one number from user and find if it is prime or not.
21. Accept one number from user and find if it is Armstrong or not.
22. Print 0 1 1 2 3 5 8 13 21 34 55 ... (Fibonacci series)
23. Generate the value of n! factorial for n number
24.  $1+2+3+4+5+6$  up to n terms
25.  $1+3+5+7+9$  up to n terms
26.  $1+2+4+5+7+8$  up to n terms
27. Write a program that perform the following output for n by n matrix without using array
 

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1 2 3 4 5
10 9 8 7 6
11 12 13 14 15
20 19 18 17 16
21 22 23 24 25

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28. Accept a number (X) and perform  $X + X^2 + X^3 + X^4 + X^5 + ... + X^n$  up to n terms
29. Print the following patterns for n number of rows

Pattern 1	Pattern 2	Pattern 3
*	*	*
**	**	**
***	***	***
****	****	****
*****	*****	*****

30. Print the following pattern for n number of rows

Pattern 1	Pattern 2	Pattern 3
A A A A A	1	12345
B B B B B	10	1234
C C C C C	100	123
D D D D D	1000	12
E E E E E	10000	1

**Note: Consider ‘n’ to be input from user. Try to make the code generalised and dynamic.**