# List of Programs for Practical File - XI

1. Write a program to accepts two integers and print their sum.
2. Write a program that accepts radius of a circle and prints its area.
3. Write a program that accepts base and height and calculate the area of triangle.
4. Write a program that inputs a student's marks in three subjects (out of 100) and prints the percentage marks.
5. Write a program to compute area of square and triangle.
6. Write a program to calculate simple interest.
7. Write a program to read two numbers and prints their quotient and reminder.
8. Write a program to find whether a given number is even or odd.
9. Write a program to find largest among three integers.
10. Write a program to find lowest among three integers.
11. Write a program that accepts length and breadth of rectangle and calculate its area.
12. Write a program that accepts weight in Kg and height in meters and calculate the BMI.
13. Write a program that reads the number n and print the value of $n^2$, $n^3$ and $n^4$.
14. Write a program to accept the marks of five subjects and calculate the average marks.
15. Write a program to accept the height in cm and convert it into feet and inches.
16. Write a program that accepts the age and print if one is eligible to vote or not.
17. Write a program that accepts two numbers and check if the first number is fully divisible by second number or not.
18. Write a program to read base, width and height of parallelogram and calculate its area and perimeter.

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**19.** Write a program to accept the year and check if it is a leap year or not.

**20.** Write a program to obtain x, y, z and calculate $4x^4+3y^3+9z+6\pi$.

**21.** Write a program to input a number and print its square if it is odd, otherwise print its square root.

**22.** Write a program to input a number and check whether it is positive, negative or zero.

**23.** Write a program to input percentage marks of a student and find the grade as per following criterion:

| Marks | Grade |
|---|---|
| >=90 | A |
| 75-90 | B |
| 60-75 | C |
| Below 60 | D |

**24.** Write a program to enter a number and check if it is a prime number or not.

**25.** Write a program to display a menu for calculating area of circle or perimeter of the circle.

**26.** Write a program that reads two numbers and an arithmetic operator and displays the computed result.

**27.** Write a program to print whether a given character is an uppercase or a lowercase character or a digit or any other character.

**28.** Write a program to calculate and print the roots of a quadratic equation $ax^2+bx+c=0.(a\neq0)$

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**29.** Write a program to print sum of natural numbers between 1 to 7. Print the sum progressively i.e. after adding each natural number, print sum so far.

**30.** Write a program to calculate the factorial of a number.

**31.** Write a program to create a triangle of stars using nested loop.

**32.** Write a Python script to print Fibonacci series' first 20 elements.

**33.** Write a program to read an integer>1000 and reverse the number.

**34.** Input three angles and determine if they form a triangle or not.

**35.** Write a Python script that displays first ten Mersenne numbers.

**36.** Write a Python script that displays first ten Mersenne numbers and displays 'Prime' next to Mersenne Prime Numbers.

**37.** Write a program to calculate BMI and print the nutritional status as per following table:

| Nutritional Status | WHO criteria BMI cut-off |
|---|---|
| Underweight | <18.5 |
| Normal | 18.5-24.9 |
| Overweight | 25-29.9 |
| Obese | ≥30 |

**38.** Write python script to print following pattern.

```
1
1   3
1   3   5
1   3   5   7
```

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**39.** Write a program to find sum of series :

$s=1+x+x^2+x^3+x^4...+x^n$

**40.** Write a python script to input two numbers and print their lcm and hcf.

**41.** Write a python script to calculate the sum of the following series:

S=(1)+(1+2)+(1+2+3)+……+(1+2+3+….+n)

**42.** Write a program to print the following using a single loop (no nested loops)

1

1 1

1 1 1

1 1 1 1

1 1 1 1 1

**43.** Write a program to print a pattern like:

4 3 2 1

4 3 2

4 3

4

**44.** Program that reads a line and print its statistics like:

Number of uppercase letters:

Number of lowercase letters:

Number of alphabets:

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Number of digits:

**45.** Write a program that reads a line and a substring and displays the number of occurrences of the given substring in the line.

**46.** Write a program that takes a string with multiple words and then capitalizes the first letter of each word and forms a new string out of it.

**47.** Write a program that reads a string and checks whether it is a palindrome string or not.

**48.** Write a program that reads a string and displays the longest substring of the given string having just the consonants.

**49.** Write a program that reads a string and then prints a string that capitalizes every other letter in the string.

**50.** Write a program that reads the email id of a person in the form of a string and ensures that it belongs to domain @edupillar.com (Assumption: no invalid characters are there in email-id)

**51.** WAP to remove all odd numbers from the given list.

**52.** WAP to display second largest element of a given list.

**53.** WAP to display frequencies of all the elements of a list.

**54.** WAP in Python to find and display the sum of all the values which are ending with 3 from a list.

**55.** WAP to search an element from the given list.

**56.** WAP to accept values from user and create a tuple.

**57.** Write a program to input total number of sections and stream name in 11th class and display all information on the output screen.

**58.** Write a program to input total number of sections and

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**59.** WAP to store students' details like admission number, roll number, name and percentage in a dictionary and display information on the basis of admission number.

**60.** Write a Python program to remove an item from a tuple.

**61.** Write a program to input n numbers from the user. Store these numbers in a tuple. Print the maximum, minimum, sum and mean of number from this tuple.