1. Write a program that takes a list of numbers as input and prints the even numbers in the list using a for loop.

Example:
Input: [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
Output: 2 4 6 8 10

2. Write a program that prints the Fibonacci sequence up to a given number using a for loop.

Example:
Input: 10
Output: 0 1 1 2 3 5 8

3. Implement a code that checks whether a given number is prime or not.

Example:
Input: 17
Output: 17 is a prime number.

4. Implement a code that finds the factorial of a number using a while loop or for loop.

Example:
Input: 5
Output: Factorial of 5 is 120

5. Write a program that calculates the sum of all the digits in a given number using a while loop.

Example:
Input: 12345
Output: Sum of digits: 15

6. Implement a code that finds the largest element in a list using a for loop.

Example:
Input: [3, 9, 1, 6, 4, 2, 8, 5, 7]
Output: Largest element: 9

7. Write a program that prints the multiplication table of a given number using a for loop.

Example
: Input: 5
Output:

5 x 1 = 5
5 x 2 = 10
5 x 3 = 15
...
5 x 10 = 50

9.
    Implement a function that checks if a given string is a palindrome.
Example:
Input: "radar"
Output: "radar" is a palindrome.

    Write a program to display the cube of the number up to an integer.

10.

Test Data :
Input number of terms : 5
Expected Output :
Number is : 1 and cube of the 1 is :1
Number is : 2 and cube of the 2 is :8
Number is : 3 and cube of the 3 is :27
Number is : 4 and cube of the 4 is :64
Number is : 5 and cube of the 5 is :125

    Write a program to display a pattern like a right angle triangle using an
11.
    asterisk using loop.
The pattern like :
*
**
***
****

    Write a program to display a pattern like a right angle triangle with a
12.
    number using loop.
The pattern like :
1
12
123
1234

    Write a program to make such a pattern like a right angle triangle with
13.
    a number which will repeat a number in a row.
The pattern like :
1

22
333
4444

14. Write a program to make such a pattern like a right angle triangle with the number increased by 1 using loop..

The pattern like :

1
 2 3
4 5 6
7 8 9 10

15. Write a program to make a pyramid pattern with numbers increased by 15.

15. 1 1.

 2 3
 4 5 6
7 8 9 10

16. Write a program to make such a pattern as a pyramid with an asterisk.

*
 * *   *
* * * *
* *

17. Write a program that asks the user for their email and password. If the email and password match a predefined set of credentials, print "User login successful." Otherwise, keep asking for the email and password until the correct credentials are provided.

18. Write a program that asks the user for their email and password. You are given a list of predefined user credentials (email and password combinations). If the entered email and password match any of the credentials in the list, print "User login successful." Otherwise, keep asking for the email and password until the correct credentials are provided.

19. Write a program that takes a list of numbers as input and prints the numbers greater than 5 using a for loop and if-else condition.

20.   Write a program that counts the number of vowels in a given string
using a for loop and if-else condition.

21.   Implement a code that finds the maximum and minimum elements in a
list using a for loop and if-else condition.

22.   Write a program that calculates the sum of the squares of all odd
numbers in a given list using a for loop and if-else condition.

23.
Write a program that takes a list of student details as input, where each
student is represented by a map containing their name, marks, section,
and roll number. The program should determine the grade of each student
based on their average score (assuming maximum marks for each
subject is 100) and print the student's name along with their grade.

List<Map<String, dynamic>> studentDetails = [
 {'name': 'John', 'marks': [80, 75, 90], 'section': 'A', 'rollNumber': 101},
{'name': 'Emma', 'marks': [95, 92, 88], 'section': 'B', 'rollNumber': 102},
 {'name': 'Ryan', 'marks': [70, 65, 75], 'section': 'A', 'rollNumber': 103},];

24.   Implement a code that finds the average of all the negative numbers in
a list using a for loop and if-else condition.

25.   Write a program that takes a list of integers as input and returns a new
list containing only the prime numbers from the original list. Implement the
solution using a for loop and logical operations.

Input: [4, 7, 10, 13, 16, 19, 22, 25, 28, 31]
Output: [7, 13, 19, 31]