1. accept a number and display its table.

num = int(input("Enter a number: "))

for i in range(1,11):

print(num,"\*",i,"=",num\*i)

1. using switch ….case display whether accepted character is vowel or not.

ch = input("Enter the character of your choice: ")  
  
match ch:  
 case "a":  
 print("it is vowel")  
 case "e":  
 print('It is vowel')  
 case "i":  
 print("It is vowel")  
 case "o":  
 print("it is vowel")  
 case "u":  
 print("it is vowel")  
 case \_:  
 print("Not vowel")

3) Display numbers 1 to 10 using While loop

num = 1  
while num<=10:  
 print(num,end=" ")  
 num+=1

4) Display numbers from 3 to 30 except number 24 using while loop.

num = 2  
while True:  
 num += 1  
 if num==24:  
 continue  
 elif num==31:  
 break  
 print(num,end=" ")

5) accept marks from the user. Using if…….elif…. Else, display whether result is fail, pass, second class , first class, Distinction etc.

marks = int(input("Enter marks: "))  
if marks >= 35 and marks <= 60:  
 print("Pass with second class")  
elif ((marks >= 60) and (marks <= 80)):  
 print("Pass with First class")  
elif marks >= 80:  
 print("Pass with Distinction ")  
else:  
 print("Fail ")

6) print the total of first 10 numbers.

sum=0  
for i in range(1,11):  
 sum=sum+i  
print("Total sum of first 10 number is : ",sum)

7) accept numbers till user enters 0 and display the total of all the numbers entered.

sum=0  
while True:  
 num = int(input("Enter a number: "))  
 if(num==0):  
 break  
 sum+=num  
print("Total sum is = ",sum)

8) accept a character and display whether it is upper case or lower case or not an alphabet.

ch = input("Enter the character: ")  
if(ch==ch.upper() and ch.isalpha()):  
 print("Upper Case")  
elif(ch==ch.lower() and ch.isalpha()):  
 print("Lower Case")  
else:  
 print("Invalid input")

9) display fibonicii series of 10 numbers

a=0  
b=1  
print(a,end=",")  
print(b,end=",")  
for i in range(2,12):  
 c=a+b  
 a=b  
 b=c  
 print(c,end=",")

10) display prime numbers from 3 to 30

s = 3  
e= 30  
for i in range(s,e+1):  
 for j in range(2,i):  
 if(i % j) == 0:  
 break  
 else:  
 print(i,end=" ")

11) accept a number and display whether it is prime or not

num=int(input("Enter the number"))  
for i in range(2, num):  
 if (num % i) == 0:  
 print(num," is not a prime number")  
 break  
else:  
 print(num," is a prime number")

12) print the following pattern:

\*

\* \*

\* \* \*

\* \* \* \*

\* \* \* \* \*

num = int(input("Enter number of row : "))  
for i in range(1,num+1):  
 for j in range(1,i+1):  
 print("\*",end=" ")  
 print()

13) print the following pattern:

\* \* \* \* \*

\* \* \* \*

\* \* \*

\* \*

\*

num = int(input("Enter number of row : "))  
for i in range(num,0,-1):  
 for j in range(i):  
 print("\*",end=" ")  
 print()

14) print the following pattern

\*

\* \*

\* \* \*

\* \* \* \*

\* \* \* \* \*

num = 5  
for i in range(1,num+1):  
 print(" "\*(5-i)\*2,end=" ")  
 for j in range(i):  
 print("\*",end=" ")  
 print()

15) print the following pattern

\*

\* \*

\* \* \*

\* \* \* \*

\* \* \* \* \*

num = 5  
  
for i in range(1, num + 1):  
 print(" " \* (num - i) + "\* " \* i)

16) print the following pattern

\* \* \* \* \*

\* \* \* \*

\* \* \*

\* \*

\*

num = 5  
  
for i in range(num,0,-1):

\*

\* \*

\* \* \*

\* \* \* \*

\* \* \* \* \*

\* \* \* \* \* \*

\* \* \* \* \*

\* \* \* \*

\* \* \*

\* \*

\*  
 print(" " \* (num - i) + "\* " \* i)

17) print the following

num = 6  
  
for i in range(1, num + 1):  
 print(" " \* (num - i) + "\* " \* i)  
for i in range(num - 1, 0, -1):  
 print(" " \* (num - i) + "\* " \* i)