1.Program to swap two numbers.

```
num1=int (input("Enter 1st number:"))
num2=int (input("Enter 1st number:"))

temp=num1
num1=num2
num2=temp

print("NO 1:",num1)
print("NO 2:",num2)
```

2.Program to input a message from user and display it.

```
name=(input("Enter Your name:"))
print("Welcome ",name)
```

3.Program to input three numbers from user and display the sum.

```
num1=int (input("Enter 1st number:"))
num2=int (input("Enter 2nd number:"))
num3=int (input("Enter 3rd number:"))

sum =num1+num2+num3
print("Sum of 3 numbers is :",sum)
```

4.Program to input length and breadth from user and display area of rectangle.

```
lenght=int(input("Enter lenght of rectangle: "))
breadth=int(input("Enter breadth of rectangle: "))

area=lenght*breadth
print("Area of Rectangle :",area)
```

5.Program to take age as input from user and display the days,months and weeks remaining for the user to reach 90 years of age.

```
age = int(input("Enter your current age: "))
max_age = 90

print("Days remaining :",max_age*365)
print("Months remaining: ",max_age*12)
print("Weeks remaining: ",max_age*52)
```

6.Program to input bill amount,no. of persons and tip percentage from user and also display the total bill amount after adding the tip.Also display the amount each person has to pay.

```
amt=int(input("Enter the bill amount:"))
 no_of_person=int(input("Enter no of people:"))
 tip_percent=int(input("Enter tip percentage:"))
total_amt=amt+(amt*(tip_percent/100))
print("Total amount:",total_amt)
print("Each person has to pay",round(total_amt/no_of_person,2),"rs")
```

7.Program that takes an integer input and checks: • If it's both even and divisible by 5. • If it's only even. • If it's only divisible by 5. • If it's neither

```
num=int(input("Enter the number:"))
if((num%5 == 0) and (num%2 == 0)):
 print("Number is divisible by 5 and is even")
elif(((num%2)==0) and ((num%5)!=0)):
print("Number is even") elif((num%5)==0):
```

print("Divisible by 5") else: print("NOT EVEN and not divisible by 5")

8. Program that checks the validity of a user-entered password based on the following criteria: 1. The password length must be between 9 to 15 characters. 2. It should contain both alphabets and numbers (not just alphabets or just numbers). 3. Display appropriate messages based on the validation result.

```
passw=input("Enter password:")
 if(len(passw) < 9 or len(passw)>16 ):
print("Enter a password with minimum 9 characters and maximum 15 characters")
else:
if(passw.isalpha()):
print("Use numbers")
else:
if(passw.isnumeric()):
 print("USE alphabets")
else: print("Correct")
```

10.Program to reverse a integer.

```
num=int(input("Enter number:"))
print(“Method 1”)
#print(str(num)[::-1])
print("Method 2") rev=0 while((num%10)!=0):
 dig=num%10 rev=rev*10+dig num=int(num/10)
 print(rev)
```

11. Program to calculate BMI using user-input height (m) and weight (kg). Round the result to two decimal places and display it.

```
h=int(input("Enter height (in m):"))
 w=int(input("Enter height (in kg):"))
bmi=round(w/(h**2),2)
print(bmi)
```

12. Write a Python program to check whether a given number is prime. If the number is not prime, display its divisors (excluding 1 and itself).

```
num=int(input("Enter number:"))
 c=0 l=list() for i in range (2,num-1):
 if num%i == 0: c=c+1
l.append(i)
if c==0:
print("Prime")
else:
print("Divisior are:") for i in l:
print(i)
```