Program 1

```
num=int(input("enter a number"))
count=0
for i in range(1,num+1):
    if num%i==0:
        count+=1
if count==2:
        print(num,"is prime")
else:
        print(num,"is not prime")
```

Output

enter a number7

7 is prime

[Program finished]

Program 2

```
n=int(input("enter a number"))
a=0
b=1
if n<0:
    print("incorrect input")
elif n == 0:
        print(a)
elif n == 1:
        print(a)
else:
```

```python
 for i in range(0,n):
        c=a+b
        a=b
        b=c
        print(b)
```

Output

Enter a number10

1

2

3

5

8

13

21

34

55

89

[Program finished]

Program 3

```python
Num=int(input("enter a number"))
Fact=1
If num == 0:
  Print("factorial of",num,"is",fact)
For i in range(1,num+1):
Fact=fact*i
Print("factorial of",num,"is",fact)
```

Output

Enter a number 5

Factorial of 5 is 120

[Program finished]

Program 4

Num=int(input("enter a number"))

Sum=0

Temp=num

While temp>0:

   Digit=temp%10

   Sum+=digit**3

  Temp//=10

If num==sum:

   Print(num,"is armstrong")

Else:

   Print(num,"is not armstrong")

Output

Enter a number663

663 is not armstrong

[Program finished]

Program 5

N=int(input("enter a limit"))

Print("prime upto",n,"are")

For i in range(2,n + 1):

   If i > 1:

For j in range(2,i):

       If(i%j==0):

Break

       Else:

           Print(i)

Output

prime upto 6 are

2

3

5

[Program finished]

Program 6

N=int(input("enter a number"))

Sum=0

For i in range(1,n):

   If n%i==0:

       Sum=sum+i

If(sum==n):

       Print("perfect number")

Else:

         Print("not perfect number")

Output

Enter a number27

Not perfect number

[Program finished]