# Prime

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

## ==== RESTART:

C:/Users/acer/AppData/Local/Programs/Python/Python310/prime.py === enter a number9

9 is not prime

## ==== RESTART:

C:/Users/acer/AppData/Local/Programs/Python/Python310/prime.py === enter a number23

23 is prime

# Fibonacci

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:

for i in range(2,n): c=a+b

a=b b=c print(b)

# output

## ===== RESTART:

C:/Users/acer/AppData/Local/Programs/Python/Python310/fib.py ==== enter a number10

1

2

3

5

8

13

21

34

# Factorial

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

## ==== RESTART:

C:/Users/acer/AppData/Local/Programs/Python/Python310/fact.py ==== enter a number5

factorial of 5 is 120

**Armstrong** 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

## == RESTART:

C:/Users/acer/AppData/Local/Programs/Python/Python310/armstrong.py = enter a number663

663 is not armstrong

## == RESTART:

C:/Users/acer/AppData/Local/Programs/Python/Python310/armstrong.py = enter a number407

407 is armstrong

**N prime numbers** 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

## === RESTART:

C:/Users/acer/AppData/Local/Programs/Python/Python310/prime n.py == enter a limit6

prime upto 6 are 2

3

5

# Perfect

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

## === RESTART:

C:/Users/acer/AppData/Local/Programs/Python/Python310/perfect.py == enter a number27

not perfect number