**Problem 1**

# Write a program to demonstrate the use of different operators in python.  
  
def operators\_demo(a, b):  
 print("Addition:", a + b)  
 print("Subtraction:", a - b)  
 print("Multiplication:", a \* b)  
 print("Division:", a / b if b != 0 else "Undefined")  
 print("Modulus:", a % b if b != 0 else "Undefined")  
 print("Floor Division:", a // b if b != 0 else "Undefined")  
 print("Exponentiation:", a \*\* b)  
 print("Equal:", a == b)  
 print("Not Equal:", a != b)  
 print("Greater:", a > b)  
 print("Smaller:", a < b)  
 print("Logical AND:", a > 0 and b > 0)  
 print("Logical OR:", a > 0 or b > 0)  
 print("Logical NOT:", not(a > 0))  
  
a = int(input("Enter first number: "))  
b = int(input("Enter second number: "))  
operators\_demo(a, b)

**Output**

Error: Sorry for the inconvenience, there was an API error: Gemini API returned status 429 - {  
 "error": {  
 "code": 429,  
 "message": "You exceeded your current quota, please check your plan and billing details. For more information on this error, head to: https://ai.google.dev/gemini-api/docs/rate-limits.\n\* Quota exceeded for metric: generativelanguage.googleapis.com/generate\_content\_free\_tier\_requests, limit: 50\nPlease retry in 26.772067711s.",  
 "status": "RESOURCE\_EXHAUSTED",  
 "details": [  
 {  
 "@type": "type.googleapis.com/google.rpc.QuotaFailure",  
 "violations": [  
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 "quotaId": "GenerateRequestsPerDayPerProjectPerModel-FreeTier",  
 "quotaDimensions": {  
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 "model": "gemini-2.0-flash-exp"  
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 "quotaValue": "50"  
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 "links": [  
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 "description": "Learn more about Gemini API quotas",  
 "url": "https://ai.google.dev/gemini-api/docs/rate-limits"  
 }  
 ]  
 },  
 {  
 "@type": "type.googleapis.com/google.rpc.RetryInfo",  
 "retryDelay": "26s"  
 }  
 ]  
 }  
}

**Problem 2**

# Write a program to print Fibonacci Series 0 1 1 2 3 5 ………..N  
  
n = int(input("Enter the number of terms: "))  
a, b = 0, 1  
print("Fibonacci Series:")  
for \_ in range(n):  
 print(a)  
 a, b = b, a + b

**Output**

Enter the number of terms: 8  
Fibonacci Series:  
0  
1  
1  
2  
3  
5  
8  
13

**Problem 3**

# Write a program to print the sum of first n prime numbers.  
  
def is\_prime(num):  
 if num < 2:  
 return False  
 for i in range(2, int(num \*\* 0.5) + 1):  
 if num % i == 0:  
 return False  
 return True  
  
n = int(input("Enter Number of Prime Numbers to Sum: "))  
count, num, total = 0, 2, 0  
while count < n:  
 if is\_prime(num):  
 total += num  
 count += 1  
 num += 1  
print("Sum of first", n, "prime numbers is:", total)

**Output**

Error: Sorry for the inconvenience, there was an API error: Gemini API returned status 429 - {  
 "error": {  
 "code": 429,  
 "message": "You exceeded your current quota, please check your plan and billing details. For more information on this error, head to: https://ai.google.dev/gemini-api/docs/rate-limits.\n\* Quota exceeded for metric: generativelanguage.googleapis.com/generate\_content\_free\_tier\_requests, limit: 50\nPlease retry in 23.631021394s.",  
 "status": "RESOURCE\_EXHAUSTED",  
 "details": [  
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 "location": "global"  
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 "quotaValue": "50"  
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 "links": [  
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 "description": "Learn more about Gemini API quotas",  
 "url": "https://ai.google.dev/gemini-api/docs/rate-limits"  
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