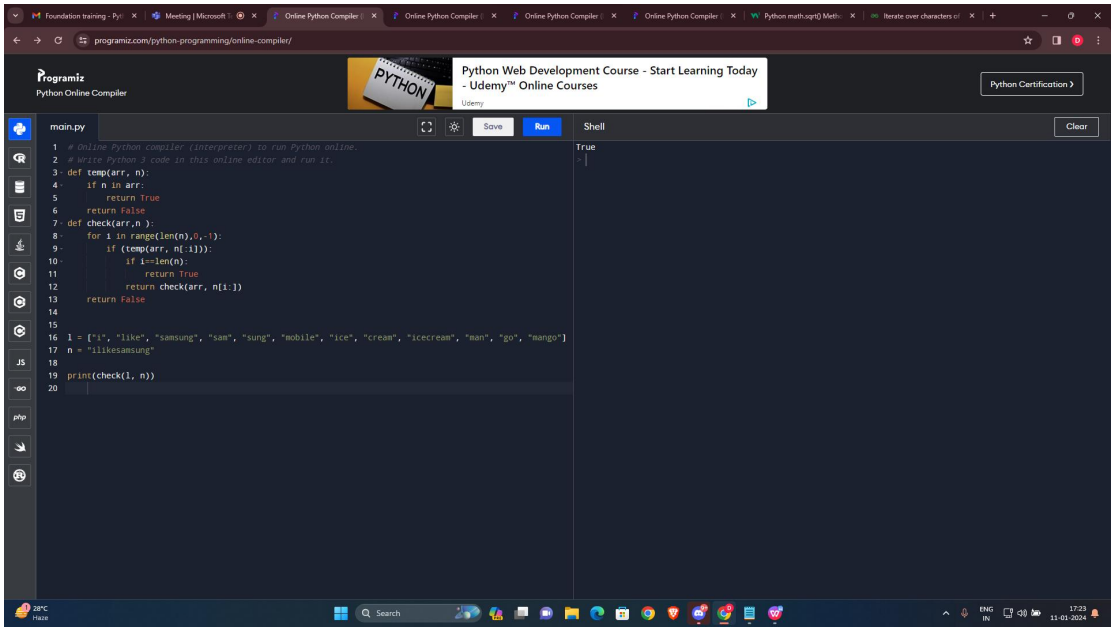
Question 1:

```
def temp(arr, n):
    if n in arr:
        return True
    return False
def check(arr,n ):
    for i in range(len(n),0,-1):
        if (temp(arr, n[:i])):
            if i==len(n):
                return True
            return check(arr, n[i:])
    return False
```

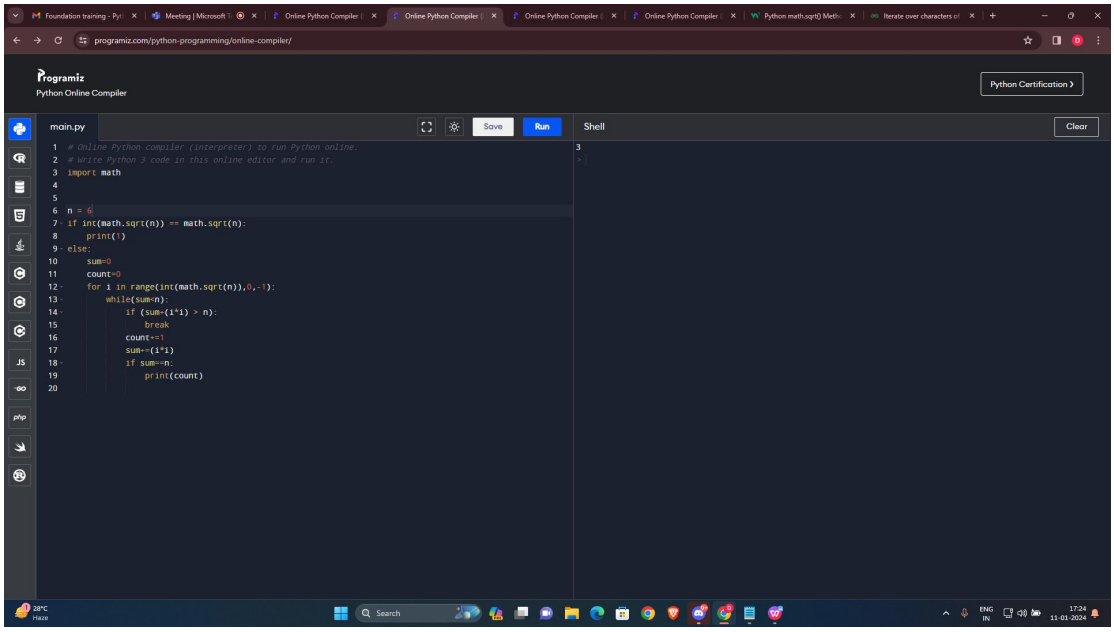
```
l = ["i", "like", "samsung", "sam", "sung", "mobile", "ice", "cream", "icecream", "man", "go", "mango"]
n = "ilikesamsung"

print(check(l, n))
```



Question 2:

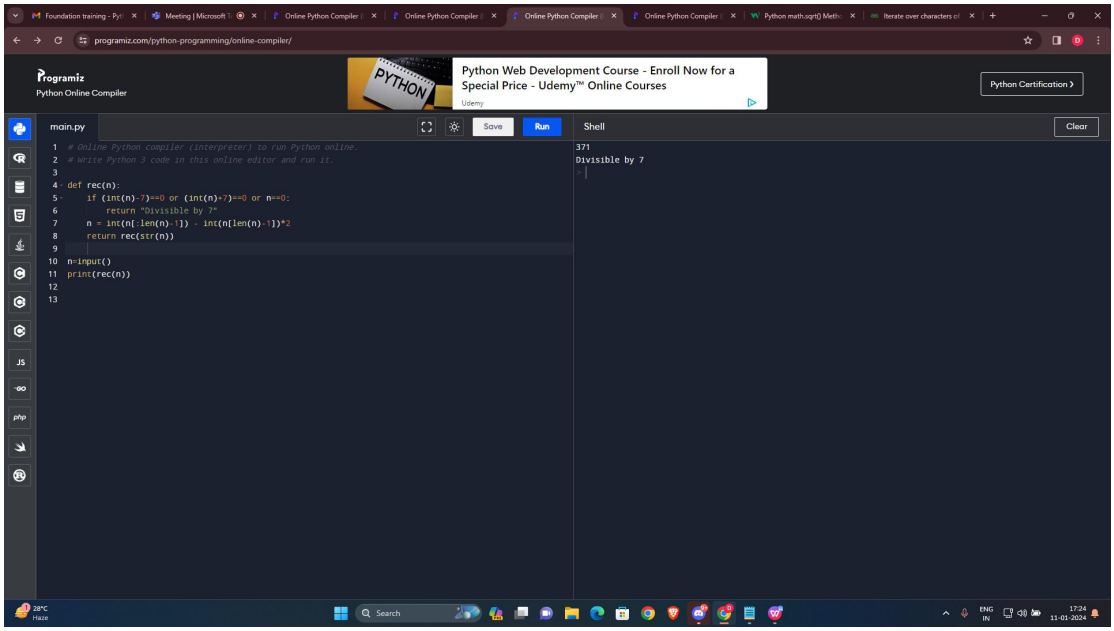
```
import math
n = 104
if int(math.sqrt(n)) == math.sqrt(n):
   print(1)
else:
   sum=0
   count=0
   for i in range(int(math.sqrt(n)),0,-1):
      while(sum<n):
         if (sum+(i*i) > n):
            break
         count+=1
         sum+=(i*i)
         if sum==n:
            print(count)
```



Question 3:

```
def rec(n):
    if (int(n)-7)==0 or (int(n)+7)==0 or n==0:
        return "Divisible by 7"
    n = int(n[:len(n)-1]) - int(n[len(n)-1])*2
    return rec(str(n))

n=input()
print(rec(n))
```



Question 4:

```
def fun(i,t,n):
    if t==n:
        return i
    count = 0
    val=0
    st = ""
    for k in range(len(i)):
        if val==0:
            val = int(i[k])
            count+=1

        elif val==int(i[k]):
            count+=1
        else:
            st+=str(count)+str(val)
            val = int(i[k])
            count=1

    st+=str(count)+str(val)
    return fun(st,t+1,n)

#n = int(input())
n=int(input())
print(fun("1",1,n))
```