```
In [1]: | size=int(input())
        2
        #count divisions
In [4]:
        def countdiv(i,j,k):
             count=0
             for a in range(i,j+1):
                 if a%k==0:
                     count=count+1
             print(count)
         countdiv(1,10,1)
        10
In [5]: def counts():
             1=[]
             for i in range(0,3):
                 a=int(input())
                 1.append(a)
             print(1)
         counts()
        1
        10
        [1, 10, 1]
In [7]: #count divisiors
        def countdiv(i,j,k):
             count=0
             for a in range(i,j+1):
                 if a%k==0:
                     count=count+1
             print(count)
         st=input()
         st=st.split()
        i=int(st[0])
         j=int(st[1])
        k=int(st[2])
         countdiv(i,j,k)
        1 10 1
        10
```

```
In [15]: #polindrome string
         def polin(s):
              a=[]
              for i in s:
                  a.append(i)
              a.reverse()
              print(a)
              if s==a:
                  print("yes")
              else:
                  print("false")
         polin("sas")
         ['s', 'a', 's']
         false
In [17]:
         a=['s','a']
         b=str(a)
         b
Out[17]: "['s', 'a']"
In [18]: def polin(s):
              if s==s[::-1]:
                  print("YES")
              else:
                  print("NO")
          s=input()
         polin(s)
         aba
         YES
In [30]:
         #toggle string
         def toggl(s):
              for i in s:
                  if i==i.lower():
                      a=i.upper()
                      print(a,end="")
                  elif i==i.upper():
                      a=i.lower()
                      print(a,end="")
         s="sAth"
         toggl(s)
```

 SaTH

```
In [36]: def st(n):
             for i in range(0,n):
                  s1=input("enter s1")
                  s2=input("enter s2")
                  for 11 in s1:
                      for 12 in s2:
                          print(12,end="")
         st(2)
         2 3 5 7 11 17
         enter s1sa
         enter s2sa
         sasaenter s1qq
         enter s2ww
         qqww
In [18]: #prime no range
         def primerange(n):
             for j in range(n+n):
                      c=0
                      for i in range(1,n):
                          if j%i==0:
                              c=c+1
                      if c==2:
                          print(j)
         primerange(5)
         2
         3
         9
In [ ]:
```

```
In [25]: #prime range
         def primerange(n):
              for j in range(n):
                      c=0
                      for i in range(1,n):
                          if j%i==0:
                              c=c+1
                      if c==2:
                          print(j)
         primerange(9)
         2
         3
         5
         7
In [3]: def defftime(sh,sm,eh,em):
              tm=0
              sm=sh*60+sm
              em=eh*60+em
              tm=em-sm
              sh=tm//60
              eh=tm%60
              print(sh,eh)
         n=int(input())
         for i in range(0,n):
              s=input()
              s=s.split()
              sh=int(s[0])
              sm=int(s[1])
              eh=int(s[2])
              em=int(s[3])
              defftime(sh,sm,eh,em)
         2
         1 44 2 14
         0 30
         2 42 8 23
         5 41
```

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```
In [12]: #count char sum
         def charsum(st):
              letters=['','a','b','c','d','e','f','g','h','i','j','k','l','m','n','o','p',
              su=0
              for i in st:
                  for j in letters:
                      if i==j:
                          su=su+letters.index(i)
              print(su)
          st=input()
         charsum(st)
         aba
         4
 In [5]:
         i=input().split()
         n=int(i[0])
         q=int(i[1])
         numbers=input().split()
         sum1=0
         len1=0
         for z in range(n):
              numbers[z]=int(numbers[z])
         for j in range(q):
              k=input().split()
              e1=int(k[0])
              e2=int(k[1])
              if e2==len(numbers):
                  sum1=sum(numbers[e1:e2-1])
                  len1=len(numbers[e1:e2-1])
              else:
                  sum1=sum(numbers[e1:e2])
                  len1=len(numbers[e1:e2])
              print(sum1//len1)
         5 3
         1 2 3 4 5
         1 3
         2
         2 4
         3
         2 5
         3
```

```
In [22]: l=input()
         count=0
         count1=0
         count2=0
         for i in 1:
              if i==i.isdigit():
                  count=count+1
              elif i==i.isalpha():
                  count1=count1+1
              else:
                  count2=count2+1
         print(count)
         print(count1)
         ssd1
         0
         0
In [4]: def perfect(n):
              sums=0
              for i in range(1,n):
                  if n%i==0:
                      sums=sums+i
              if sums==n:
                  print("YES")
              else:
                  print("NO")
         a=int(input())
         for j in range(a):
              n=int(input())
              perfect(n)
         2
         6
         YES
         10
         NO
In [2]: def highrem(n):
              r=0
              for i in range(1,n):
                  rem=n%i
                  if r>rem
Out[2]: ()
```

```
In [10]: def primeNo(n):
              fc = 0
              for k in range(1,n+1):
                  n = k
                  c = 0
                  for i in range(1,n+1):
                      if(n%i==0):
                          c=c+1
                  if(c==2):
                      fc = fc+1
              if (fc==2):
                  print("YES")
              else:
                  print("NO")
         primeNo(7)
         NO
```

In []:

In []: