

**Name:** P Manoj

**Roll Number:** 20481A05I5

### **1. Length of Palindrome**

```
def p(n):
    temp=n
    rev=0
    while(n>0):
        dig=n%10
        rev=rev*10+dig
        n=n//10
    return rev
ma=int(input())
while(ma):
    n=int(input())
    c=100
    while(c):
        if(n==p(n)):
            s=str(n)
            if len(s)>10:
                print("-1")
                break
            else:
                print(len(s))
                break
        else:
            ss=p(n)
            n=n+ss
        c=c-1
    else:
        print("-1")
    ma=ma-1
```

### **2. Recycling-Pens**

### **3. Beautiful-Name-1**

### **4. Password Encryption**

```
def rotate(input,d):
    Rfirst = input[0 : (len(input)-d)]
```

```

Rsecond = input[(len(input)-d): ]
return (Rsecond + Rfirst)

al=['a','b','c','d','e','f','g','h','i','j','k','l','m','n','o','p','q','r','s','t','u','v','w','x','y','z']
n=input()
nn=int(input())
l=list(n)
a=['@','(',')','{','}']
aa=[]
aaa=[]
cc=0
ccc=0
for i in range(len(a)):
    if a[i] in l:
        cc=cc+1
for i in range(len(a)):
    if (a[i] in al) or (a[i] in a):
        ccc=ccc+1

if cc>0 and ccc==len(a):
    for i in range(len(n)):
        if n[i] in a:
            aa.append(i)
            aaa.append(n[i])
    an=rotate(aaa,nn)
    final=[]
    j=0
    for i in range(len(n)):
        if n[i] not in a:
            final.append(n[i])
        else:
            for k in range(0,1):
                final.append(an[j])
                j=j+1
    x = "".join(final)
    print(x)
elif ccc<len(a):

```

```
print("-1")
else:
    print(n)
```

## **5. Unbelievable-Pattern**

**Name:** B SATYA SAI KOUSHIK

**Roll Number:** 21481A0539

### **1. Length of Palindrome**

```
T=int(input())
while T>0:
    S=int(input())
    n1=S
    while n1<10000000:
        sum=0
        n2=n1
        while(n1>0):
            r=n1%10
            sum=sum*10+r
            n1=n1//10
        if(sum==n2):
            n3=str(n2)
            print(len(n3))
            break
        else:
            n1=sum+n2
    if(n1>10000000):
        print("-1")
    T=T-1
```

### **2. Recycling-Pens**

### **3. Beautiful-Name-1**

### **4. Password Encryption**

### **5. Unbelievable-Pattern**

```
n=int(input())
k=1
s=n**2
for i in range(1,n+1):
    for j in range(1,i+1):
```

```

if(k<=100 and k>=10):
    print(k,end=" ")
else:
    print("",k,end=" ")
k=k+1
for l in range(n-1,i-2,-1):
    if(l<=100 and l>=10):
        print("",s,end=" ")
    else:
        print(s,end=" ")
s=s-1
print()

```

**Name:** A MAHITH SAI REDDY

**Roll Number:** 21481A0510

## 1. Length of Palindrome

```

T=int(input())
while T>0:
    S=int(input())
    n1=S
    while n1<10000000:
        sum=0
        n2=n1
        while(n1>0):
            r=n1%10
            sum=sum*10+r
            n1=n1//10
        if(sum==n2):
            n3=str(n2)
            print(len(n3))
            break
        else:
            n1=sum+n2
    if(n1>10000000):
        print('-1')
    T=T-1

```

## 2. Recycling-Pens

### 3. Beautiful-Name-1

### 4. Password Encryption

### 5. Unbelievable-Pattern

```
n=int(input())
k=1
s=n**2
for i in range(1,n+1):
    for j in range(1,i+1):
        if(k<10):
            print("",k,end=" ")
        else:
            print(k,end=' ')
        k=k+1
    for l in range(n-1,i-2,-1):
        print(s,end=" ")
        s=s-1
    print()
```

**.Dr. T. Srinivasa Rao**  
**(COMITY Advisor)**

**Dr. M. Babu Rao**  
**(HoD, CSE)**