

```
In [69]: print("Enter value of p, (Prime number)")
p=int(input())
print("Enter value of q, (Prime number)")
q=int(input())
```

```
Enter value of p, (Prime number)
7
Enter value of q, (Prime number)
11
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In [70]: n=p*q
r=(p-1)*(q-1)
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In [71]: print("n=",n,"\nr=",r)
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n= 77
r= 60
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In [72]: print("Enter value of e such that ==> \n1<= e <=r (",r,")    and  e i
e=int(input())
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```
Enter value of e such that ==>
1<= e <=r ( 60 )    and  e is coprime with r ( 60 )
17
```

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In [73]: d=(1/(e))%r
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In [74]: for i in range(100):
        if int(d)==d:
            break
        d=((r*i)+1)/e
```

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In [75]: d=int(d)
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In [76]: print("d=",d)
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d= 53
```

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In [79]: print("Enter Message to be encrypt.")
M=int(input())
```

```
Enter Message to be encrypt.
8
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```
In [80]: print("Finding Cipher Text....")
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```
Finding Cipher Text....
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In [81]: cipher_text=(pow(M,e))%n
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In [82]: print("Cipher Text =",cipher_text)
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```
Cipher Text = 57
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```
In [83]: print("Finding Plain Text....")
```

Finding Plain Text....

```
In [84]: plain_text=(pow(cipher_text,d))%n
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In [85]: print("plaintext=",plain_text)
```

```
plaintext= 8
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In [ ]:
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In [ ]:
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In [ ]:
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