

```
import math
def gcd(a, h):
    temp = 0
    while(1):
        temp = a % h
        if (temp == 0):
            return h
        a = h
        h = temp
p = 3
q = 11
n = p*q
e = 2
phi = (p-1)*(q-1)
while (e < phi):
    if(gcd(e, phi) == 1):
        break
    else:
        e = e+1
k = 2
d = (1 + (k*phi))/e
msg = 12.0
print("Message data = ", msg)
c = pow(msg, e)
c = math.fmod(c, n)
print("Encrypted data = ", c)
m = pow(c, d)
m = math.fmod(m, n)
print("Original Message Sent = ", m)
```



Command Prompt



Windows Terminal can be set as the default terminal application in your settings. [Open Settings](#)

```
Microsoft Windows [Version 10.0.22000.978]  
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```

```
C:\Users\DELL\OneDrive\Desktop\crypto>python rsa.py
```

```
Message data = 12.0
```

```
Encrypted data = 12.0
```

```
Original Message Sent = 11.125
```

```
C:\Users\DELL\OneDrive\Desktop\crypto>
```