In [1]:

```
import statistics as s
mean=float(input("Enter MEAN ="))
std=float(input("Enter STANDARD DEVIATION="))
nd=s.NormalDist(mu=mean,sigma=std)
decision=1
while(decision==1):
    print("\n1.Given prob less than or equal to\n2.Given prob greater than or equal to \n3.Given Prob b/w 2 values \n4.Given Prob of particular value")
    num=int(input("Enter your number ="))
    if(num==1):
        val1=float(input("Enter the value="))
        n=nd.cdf(val1)
        print(val1,"is =",n)
        print("Probability in % =",n*100)
    if(num==2):
        val1=float(input("Enter the value="))
        n=nd.cdf(val1)
        print(val1,1-n)
        print("Probability in % =",(1-n)*100)
    if(num==3):
        val1=float(input("Enter the first value="))
        val2=float(input("Enter the second value="))
        n=nd.cdf(val2)-nd.cdf(val1)
        print(val1,"and ",val2,"is =",n)
        print("Probability in % =",n*100)
    if(num==4):
        val1=float(input("Enter the value="))
        print(val1,"is =0")
        print("Probability in % =0")
    decision=int(input("press 0 for exit or 1 for continue="))
    if(decision==0):
        break
```

```
Enter MEAN =711
Enter STANDARD DEVIATION=29

1.Given prob less than or equal to
2.Given prob greater than or equal to
3.Given Prob b/w 2 values
4.Given Prob of particular value
Enter your number =3
Enter the first value=653
Enter the second value=769
653.0 and  769.0 is = 0.9544997361036418
Probability in % = 95.44997361036418
press 0 for exit or 1 for continue=0
```

In [ ]: