In [1]:

```
import numpy as np
import pandas as pd
import scipy
import scipy.stats as stats
import matplotlib.pyplot as plt

%matplotlib inline
```

In [2]:

```
Number_Questions = 20
Question_Probability = 1/4
Probability_Five_Wrong = 5
hh = stats.binom(Number_Questions, Question_Probability)
total_p = 0

for k in range(1, Probability_Five_Wrong + 1): # DO NOT FORGET THAT THE LAST INDEX IS
 total_p += hh.pmf(k)

total_p
```

Out[2]:

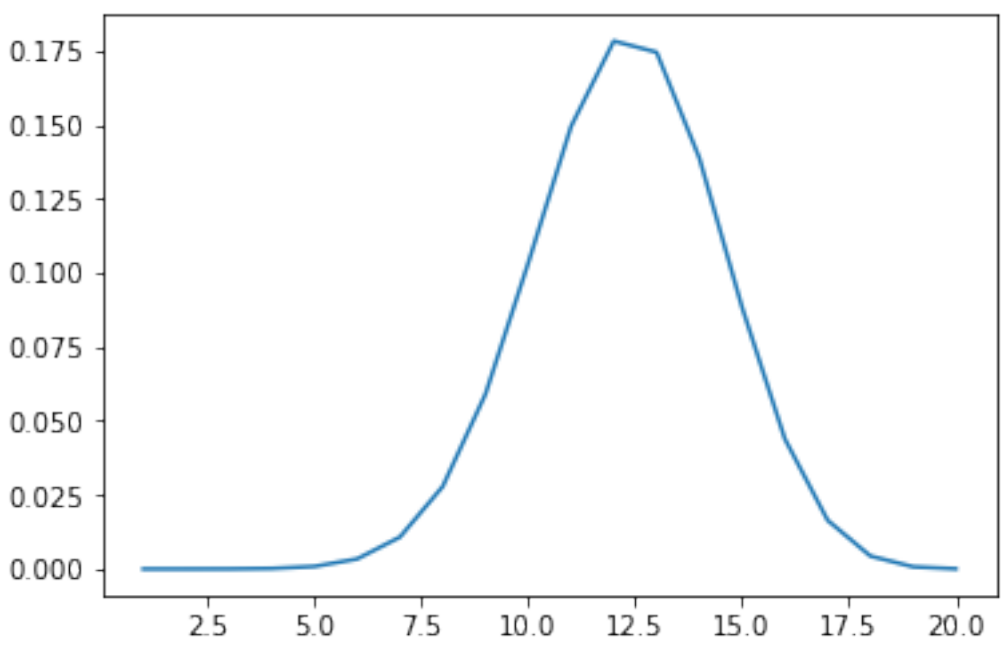
```
0.61400144244816923
```

In [3]:

```
x = scipy.linspace(1,20,20)
pmf = stats.binom.pmf(x,20,total_p)
plt.plot(x,pmf)
```

Out[3]:

```
[<matplotlib.lines.Line2D at 0x10fb7e828>]
```



In [1]:

In [2]:

Out[2]:

0.61400144244816923

In [3]:

Out[3]:

[<matplotlib.lines.Line2D at 0x10fb7e828>]