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Sent: Saturday, October 22, 2022 12:44 AM
To: Sam Gralnick
Subject: Fw: Brain Stumper 5 - Individual Challenge

Hello Prof,

I ran the tool(online) and punched the data as shown below and got the result I expected. Similar thing I should also get in python code also.

<https://stattrek.com/online-calculator/binomial>

When I used the following statements in python code-my results are matching.

```
from scipy.stats import binom
```

```
#calculate binomial probability
```

```
print(binom.pmf(k=5, n=5, p=0.2))
```

Binomial Probability Calculator - Stat Trek

Binomial Probability Calculator. Use the Binomial Calculator to compute individual and cumulative binomial probabilities. For help in using the calculator, read the Frequently-Asked Questions or review the Sample Problems.. To learn more about the binomial distribution, go to Stat Trek's tutorial on the binomial distribution.

stattrek.com

- Enter a value in each of the first three text boxes (unshaded boxes).
- Click the **Calculate** button to compute binomial and cumulative probabilities.

Probability of success on a trial

.2

Number of trials

5

Number of successes (x)

5

Binomial probability: $P(X=5)$

0.00032

Cumulative probability: $P(X<5)$

0.99968

Cumulative probability: $P(X\leq 5)$

1

Cumulative probability: $P(X>5)$

0

Thanks,
Deepak