

Sampling distributions and the Ce..



Notebook + Quiz: Central Limit Theorem - Part III

Q CONCEPTS

- 21. Notebook + Quiz: Central Lim...



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Central Limit Theorem - Part III

You saw how the **Central Limit Theorem** worked for the sample mean in the ea Central Limit Theorem states that with a large enough sample size the sam the mean will be normally distributed.

The **Central Limit Theorem** actually applies for these well known statistics:

- 1. Sample means (\bar{x})
- 2. Sample proportions (p)
- 3. Difference in sample means ($ar{x}_1 ar{x}_2$)
- 4. Difference in sample proportions $(p_1 p_2)$

And it applies for additional statistics, but it doesn't apply for all statistics! . H the sampling distribution for the sample variance. Try out the notebook and qui

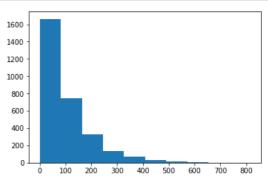
Central Limit Theorem - Part III

You saw how the Central Limit Theorem worked for the sample mean in t earlier concept. However, let's consider another example to see a case wh the Central Limit Theorem doesn't work...

Work through the questions and use the created variables to answer the questions that follow below the notebook.

Run the below cell to get started.

```
In [1]: import numpy as np
import matplotlib.pyplot as plt
%matplotlib inline
np.random.seed(42)
pop_data = np.random.gamma(1,100,3000)
plt.hist(pop_data);
```



- 1. In order to create the sampling distribution for the variance of 100 dra of this distribution, follow these steps:
- a. Use numpy's random.choice to simulate 100 draws from the

∧ Menu [] Expand

QUESTION 1 OF 2

Match each description to the correct corresponding value.

Submit to check your answer choices!