LAW OF LARGE NUMBERS

Homework Exercise

$$\bar{X}_n \longrightarrow E(X) \quad when \quad n \longrightarrow \infty$$

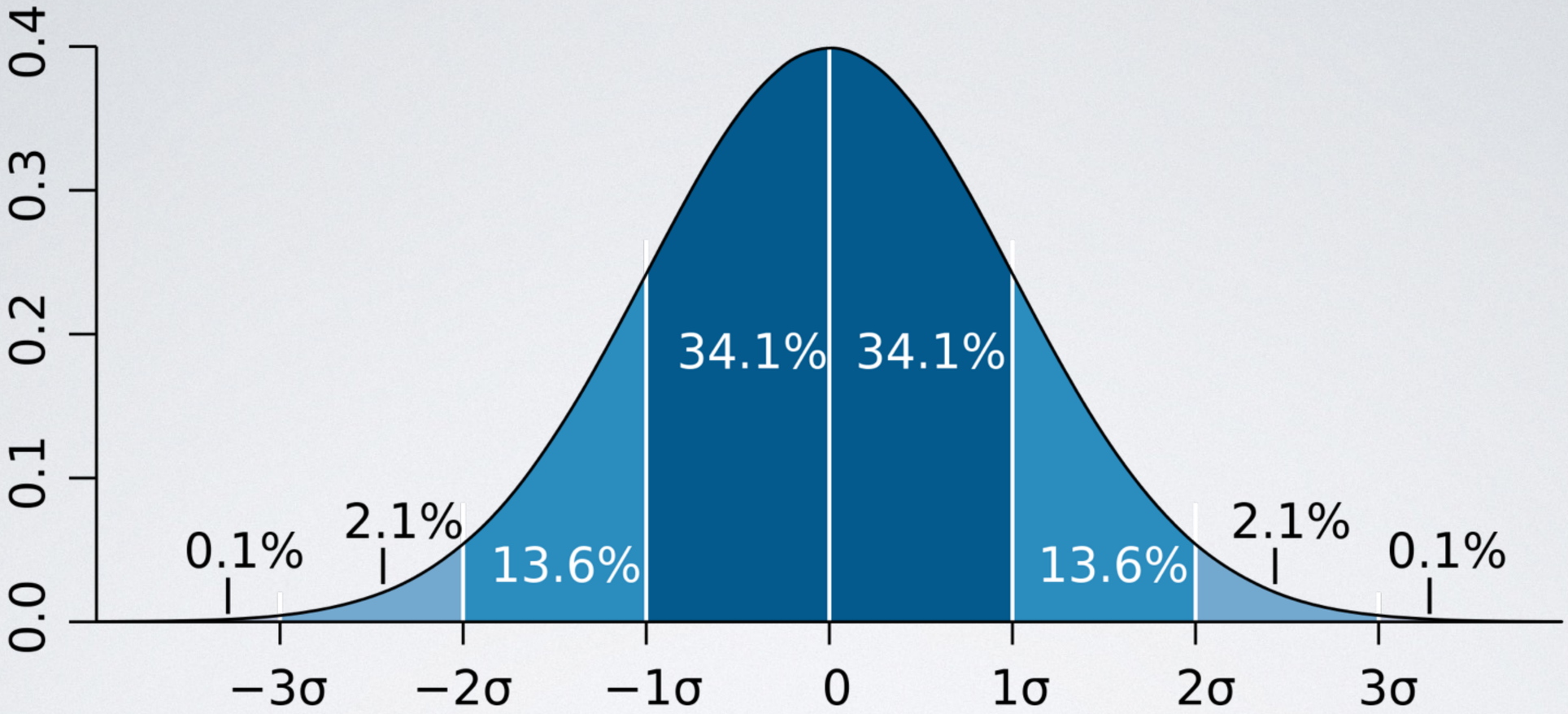
LLN

10: 7 / 3 70% / 30%

100: 52 / 48 52% / 48%

1000: 502 / 498 50.2% / 49.8%

...



NORMAL DISTRIBUTION

Test the Law Of Large Numbers for N random normally distributed numbers with mean = 0, stdev = 1:

Create a Python script that will count how many of these numbers fall between -1 and 1 and divide by the total quantity of N

You know that E(X) = 68.2%

Check that Mean(X_N) -> E(X) as you rerun your script while increasing N