Download Link:

- Click here to download the Spreadsheet

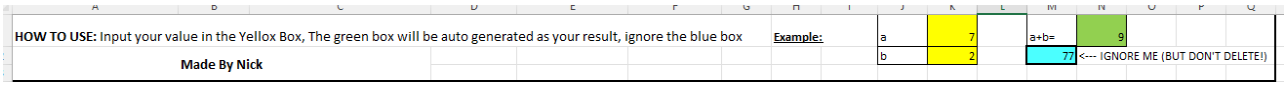
Sections (in Excel):

- Inside the spreadsheet you can see these following sections:
    1. Discrete & Continuous Distribution
    2. Sampling Distribution
    3. Point & Interval Estimate
    4. Hypothesis Testing I
    5. Hypothesis Testing II
    6. Hypothesis Testing III
    7. Regresssion Analysis I II

Notes: There are still some other sections in the field of study that are not included in the spreadsheets. I only included the most important one based on my perspective.

How to use:

- Enter your value in the **YELLOW** box, the answer then will be auto-generated in the **GREEN** box. Don't worry/ignore the **BLUE** box and also, **DO NOT DELETE** it.



- To give you more understanding what can this spreadsheet does, the 3 examples will be given (I just took it from sample final exams):

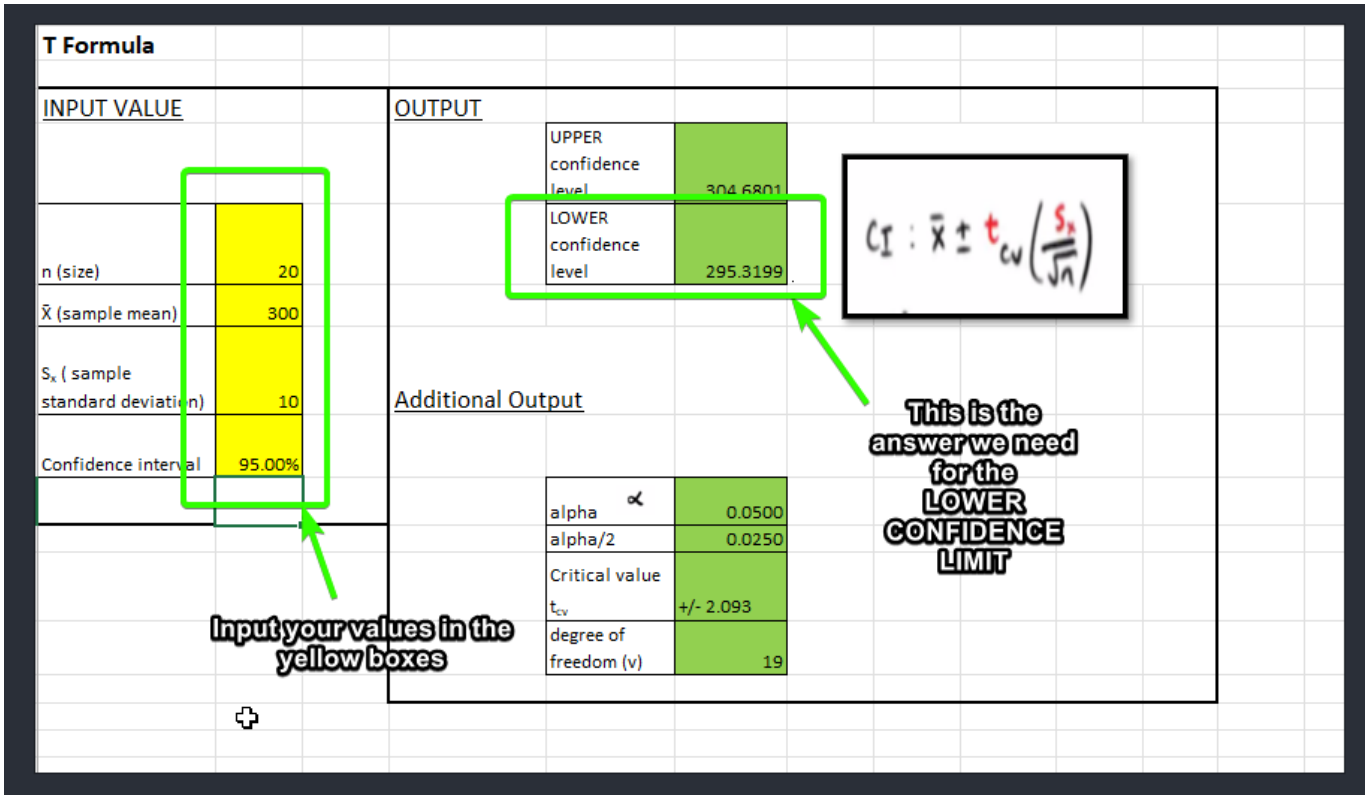
Example 1:

A manager wants to estimate the daily revenue of a branch. A sample of daily revenues of **20 daily revenues** had **mean** revenue of **$300** and **standard deviation of $10**. Based on this sample, what is the **lower confidence limit of the 95% confidence** interval of revenues?

In this question, these are the known given info:
- n (size) is: **20**
- sample mean is **300**
- sample standard deviation is **10**

- Confidence Interval is **95%**
- **Finding lower confidence limit?**

From this question, we know that (you have to know) using **T Distribution** since the standard deviation is from the sample (not known from the population) and the confidence interval is given which belongs to **Point & Interval Estimate** section.



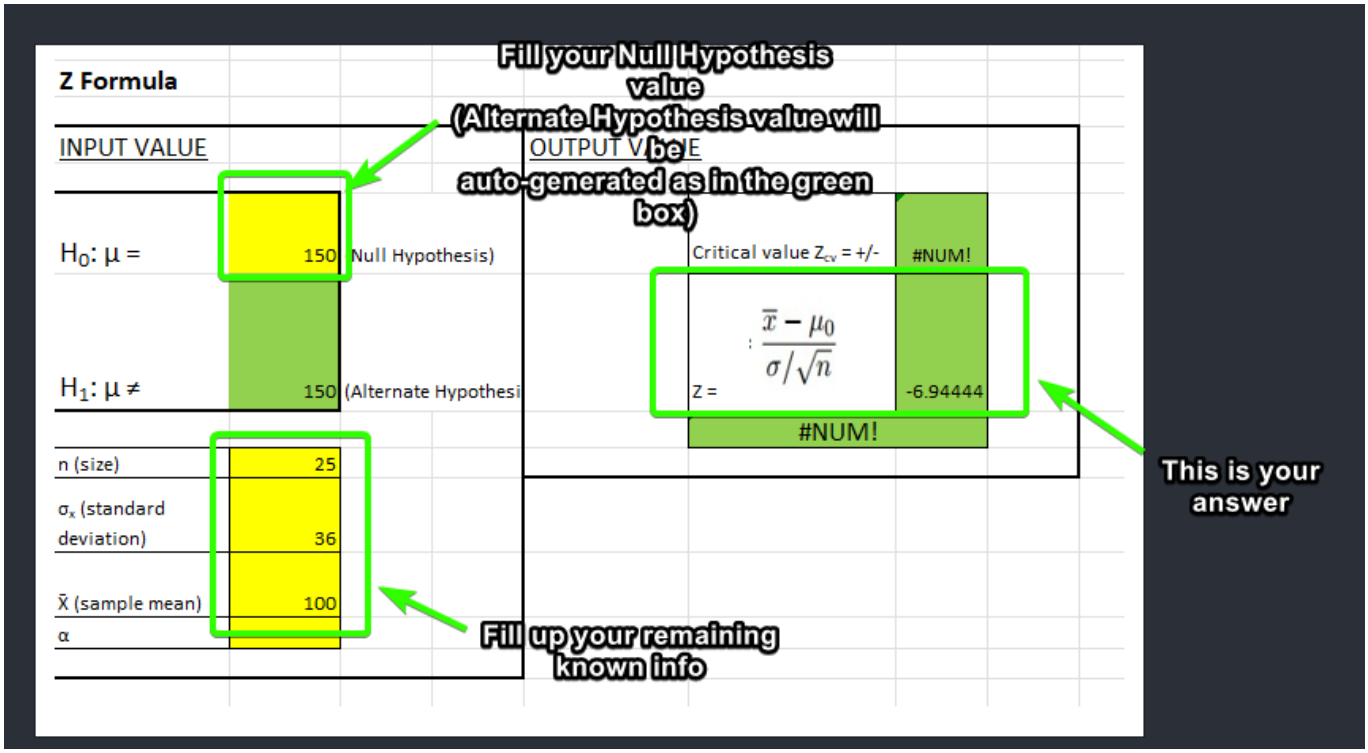
Your final answer is: **295.3199 (295.32)** for Lower Confidence Limit.

Example 2:

The weekly profit of a restaurant follows a Normal distribution. **A sample of 25** weekly profit measurements had a **mean of 100**. If the **population standard deviation is $36**, what is the **test statistic** to test the hypothesis that the **mean profit of the restaurant is equal to $150**?

In this question, these are the known given info:
- n (size): **25**
- Sample Mean: **100**
- **Population** Standard Deviation: **36** (**NOT SAMPLE** standard deviation).
- Null Hypothesis (H0): **mean = 150**, (Not equal 150 as in alternate hypothesis H1)
- **Test statistic** (**Z Stat** = ?)

This will belong to **Hypothesis Testing I** Using **Z Formula**

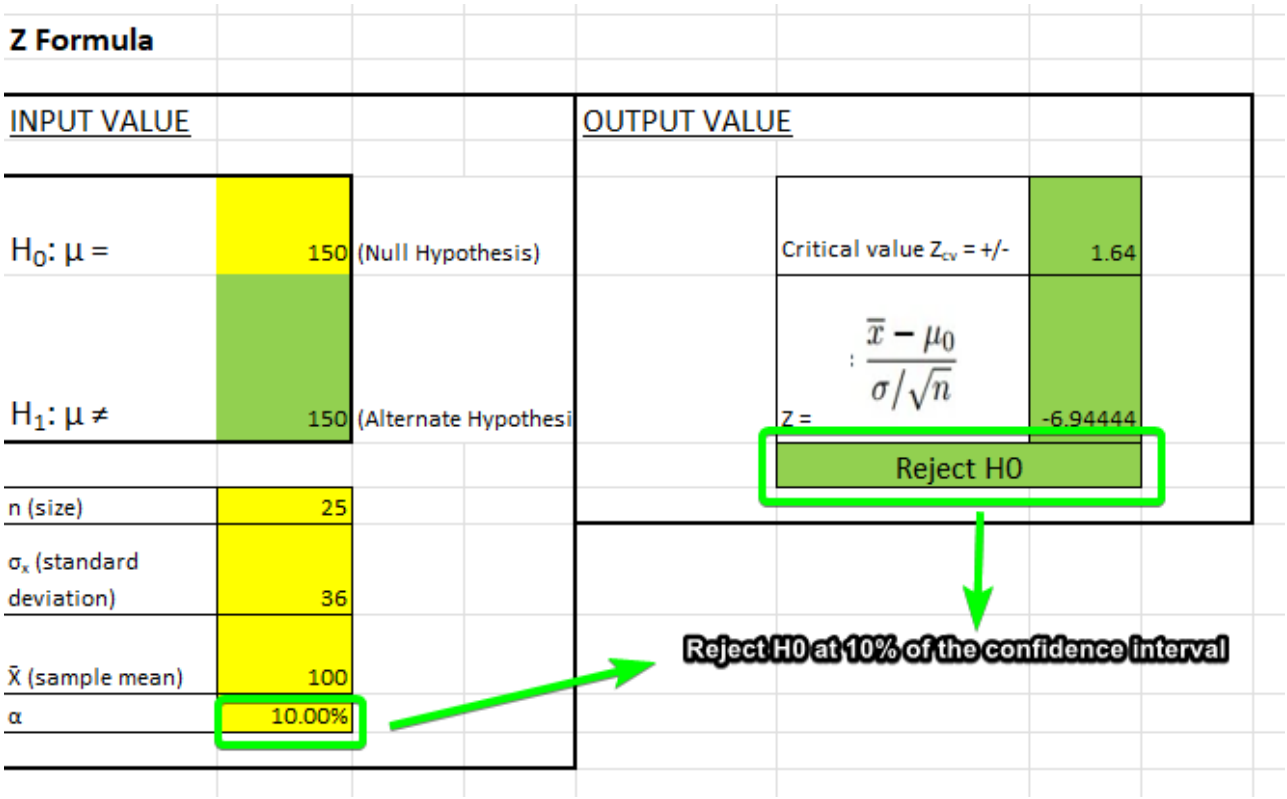


- Your final answer is **-6.94** when following Z stat formula, but just use **absolute value of it** (=6.94) for Z Statistic (it will **use absolute value of Z** to compare with Z critical value when considering if H0 should be reject or not so don't worry)
- ***(Z critical value and Hypothesis rejection or not are not known yet since the question doesn't give you the confidence level; it's only asked you to find the test statistic only!)***

Example 3:

Based on Example 2, If the confidence interval is **10%**, should we reject H0 or not?

- Now the question is given the **alpha** value which is **10% (0.1)**:



- **Reject H0** is the answer since the *absolute Z stats* is greater than the *Critical Z value* **(6.94 > 1.64)**