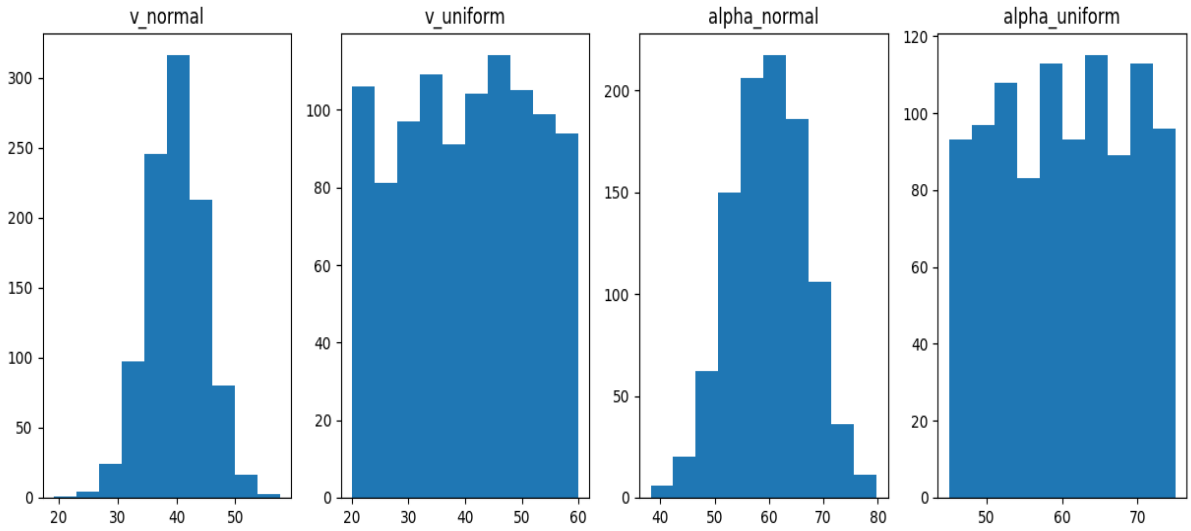
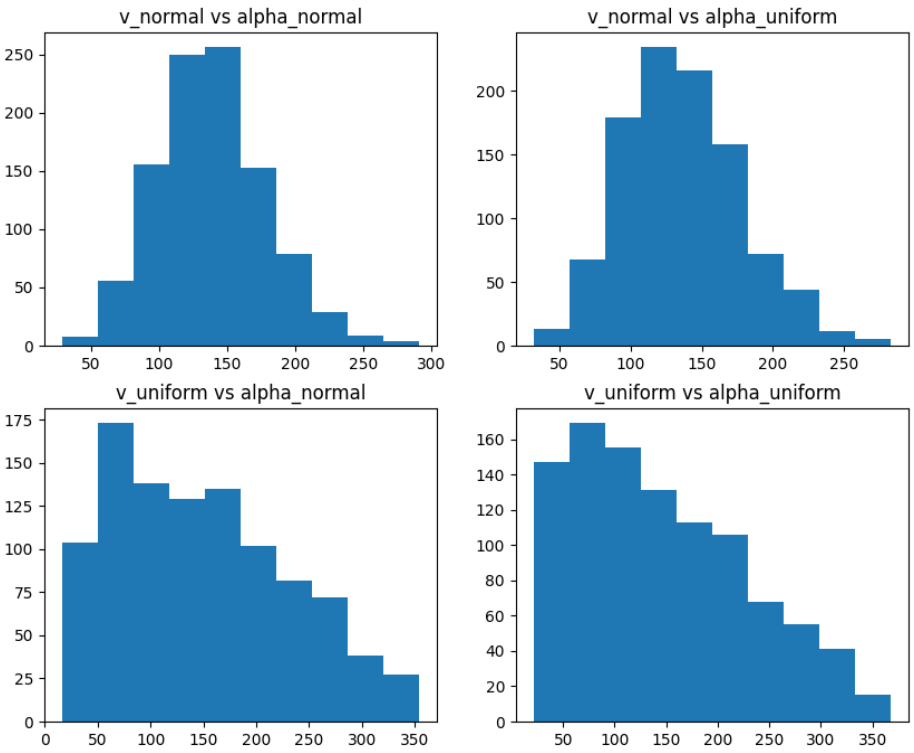
Report on the completion of the first task.

1. **The purpose of the task.**
   The main goal of this task is to investigate how the “length’s” distribution will change depending on the changing of the type of distributions of the variables “starting speed” and “angel of flight”.
2. **Create the json file with data and plot it.**

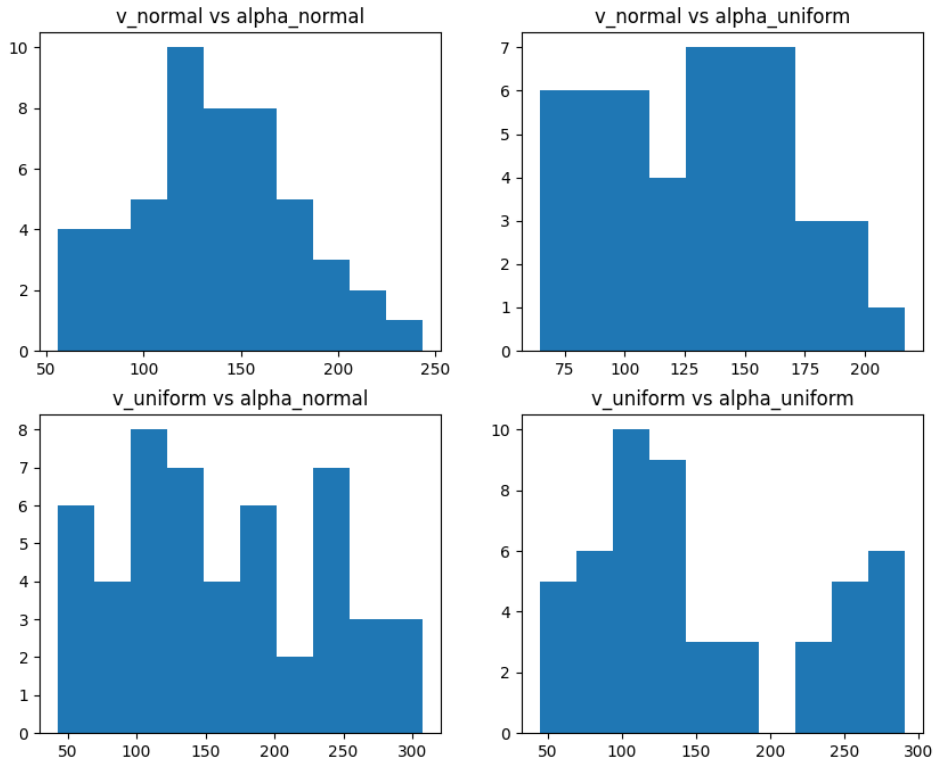


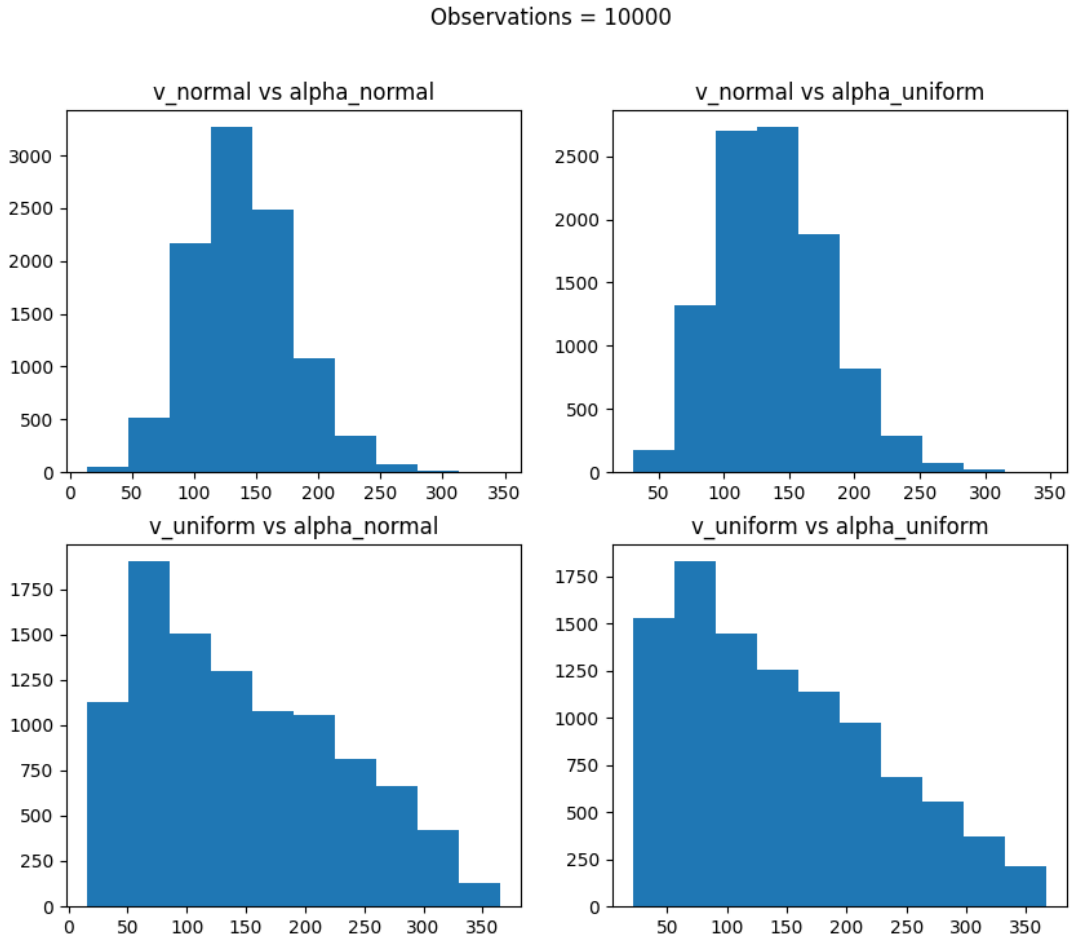
   Here I am interested in two types of distributions that are normal and uniform so i create two graphs for each variable, 4 in total.
3. **Computing the values for L for each variable and type of distributions.**
   I also used different count of observations to track how does it affect.

Observations = 1000



Observations = 50





4. **Conclusions.**

   From the graphs presented above, it can be seen that the distribution of the flight angle variable does not greatly affect the distributions of the function variable. Although on a small number of observations it may seem that this is not the case. Cases where the launch speed variable is not normally distributed show a significant positive skew to the left. At the same time, where this variable is normally distributed, the flight distance is also normally distributed.