Here I have begun the negative hypergeometric program:



After entering in this information it will call up the menu:



If we choose 1: we have to enter in the trial number:



After we enter in the trial number, it will go to this screen



where you can choose the probability situation you wish.



The information is stored in L1 if you wish to examine multiple situations:



Remember that the calculations begin with P(Y = y) = K. In this situation we are looking for the third success to occur on the seventh trial. So L1(1) corresponds to the probability of the third success occurring on the third trial, L1(2) corresponds to the probability of the third success occurring on the fourth trial, etc. This causes a problem for the graphs, not for the measurements.

If we wanted measures associated with this distribution we have the following:



We may select the measures option from the menu and we have to pick a trial number again. This helps to reset the count correctly.



The measures are displayed below, there is no need to re-adjust the numbers.

 

It will pause after the measures for the center and then give the measures for dispersion.

The plots need some attention though due to shifts in the indices. The diagrams below demonstrate this. Select PLOTS from the main menu and we have the following choices:



If we plot the frequency polygon (the pdf in this case) we see the following:



Notice that the X starts at zero, not at 3 which is the trial number where the list begins, since it is not possible to experience 3 successes after 0, 1, or 2 trials. So be aware that X in the plots case refers to the ***number of successes beyond the Kth trial***. The CDF and the Histogram also require this “mental shift”.