* The study of asymptotic distribution looks to understand how the distribution of phenomena changes as the number of samples taken into account goes from
* For example lets say we want to make a binary bet on where the stock market is going to go tomorrow
  + How does the sampling distribution change if we ask 10, 20, 50, or 1bn experts
* \*So asymptotic distributions are really when the distribution change as we change the size\*
* For example if you want to find the limits of the function
  + The function is asymptotically equivalent to
  + That is because as , overtakes the
  + you can saw that the because they are asymptotically equivalent
* imagine you plot a histogram of 100,000 numbers generated from a random number generator
  + the size falls under the law or large numbers
* The central limit theorem says that a series of distributions converges to a normal distribution as result that is independent of the parent distribution
  + If the parent distribution is normal, Bernoulli, or Chi-squared the result is always normally
* Assume a stochastic process that is non-independent
* You can see that is a non-IID generating process give its autoregressive properties
  + The distribution of the sample mean h