Stats Video Lecture – Binomial Dist

Week 2, Video 10

1. Bernoulli Random Variables
   1. each person is a trial
   2. a person is a success if they act as researchers expect
   3. a person is a failure if they do not act as researchers exepct
   4. Any study that follows this format is a Bernoulli trial
2. define binomial dist
   1. binomial dist describes the probability of having exactly *k* successes in *n* independent Bernoulli trials with a probability of *p*.
   2. P(binom) = # of scenarios\*P(single scenario)= # of scenarios \*
   3. # of scenarios =
   4. # of scenarios in **R : fact <- choose(n,k)**
   5. The whole binom equation **in R =** **dist <- dbinom(k, n, p)**
3. properties of binom dist
4. conditions of binom dist
   1. trials must be indep
   2. number of trials must be fixed
   3. each trial outcome must have a classifiable sucess or failure
   4. the probability of success *p* must be the same for each trial
5. calculating probabilities for binom dist
6. mean and st dev of binom dist
   1. mean of binomial dist
   2. st dev for binom dist