

Review

- When is a binomial distribution used? Used when there are a fixed number of independent trials, each with two outcomes (success/failure), and the probability of success is constant.
- When is a hypergeometric distribution used? Used when sampling without replacement from a finite population that contains a fixed number of successes and failures.
- When is a Poisson distribution used? Used to model the number of events occurring in a fixed interval of time, space, or area when events occur randomly and independently at a constant average rate.
- When does a binomial distribution resemble a hypergeometric distribution? When the population size N is large relative to the sample size n (sampling fraction is small), so sampling without replacement is approximately the same as sampling with replacement.
- When does a binomial distribution resemble a Poisson distribution? When the number of trials n is large and the probability of success is small, with the mean