
(Example of negative binomial distribution)

Suppose that a company wishes to hire three new workers and that each applicant interviewed has a probability of 0.6 of being found acceptable.

- 1) What is the distribution of the total number of applicants that the company needs to interview?
- 2) Calculate the probability that exactly six applicants need to be interviewed.
- 3) Calculate the probability that the company allows up to/at most six applicants to be interviewed.
- 4) Calculate the probability that at least six applicants need to be interviewed.
- 5) Calculate the expected number of interviews.