

Lecture 12

February 11, 2015

1. Show that in a binomial experiment with n independent trials and p chance for success in each trial, the expected value of number of successes is np . Hint: follow the example in the lecture.
2. Try 3.4.46
3. Try 3.4.47. Note: $\text{Bin}(15, 0.3)$ means $n = 15$ and $p = 0.3$
4. 2.3.49. Hint for part (c): Either 4 or 5 goblets are selected. In the case of 4, all of them are perfect. In the case of 5, one of the first 4 is defect and the fifth is perfect.
5. 3.4.53
6. 3.4.55. Hint: "Success" means submitted AND replaced. By the product rule for conditional probability $P(\text{Success}) = P(\text{replaced}|\text{submitted}) \cdot P(\text{submitted})$.
7. Try 3.4.57.