

Question 8.4

- [2 pts] The probability that a chipmunk eats an acorn is $0.47 (= \frac{8}{17})$.
- [2 pts] The probability that a chipmunk eats a kernel of corns is $0.53. (= \frac{9}{17})$
- [2 pts] The probability that a chipmunk eats a kernel of corn assuming that it has already eaten six kernels of corn and no acorns is $0.27 (= \frac{3}{11})$.

Question 8.5

- [2 pts] The probability that less than 60 gallons is used in this household on a random day is 0.07.
- [2 pts] The probability that between 75 and 150 gallons is used in this household on a random day is 0.77.
- [2 pts] The probability that less than 100 gallons is used in this household on a random day is 0.31.

Appendix – R Commands

```
distrib(60,mean=90,sd=20)
ab <- distrib(150,mean=90,sd=20)
a <- distrib(75,mean=90,sd=20)
ab-a
distrib(100,mean=90,sd=20,lower.tail=FALSE)
```

Notes From Professor

- Probabilities are never expressed as percentages; they are always expressed as proportions.
- I did not show graphics for the probability calculations just to save space.