

3. The probability is 0.04 that a person reached on a “cold call” by a telemarketer will make a purchase. If the telemarketer calls 40 people, what is the probability that at least one sale with result?

4. A new restaurant opening in Greenwich village has a 30% chance of survival during their first year. If 16 restaurants open this year, find the probability that

(a) exactly 3 restaurants survive.

(b) fewer than 3 restaurants survive.

(c) more than 3 restaurants survive.

8. In the intersection from Problem 7, estimate the probability of two or more accidents occurring in a year.

Empirical rule with Binomial and Poisson random variables

9. If X is a Poisson random variable with $\lambda = 225$, would it be unusual to get a value of X which is less than 190?

10. The probability is 0.10 that a person reached on a “cold call” by a telemarketer will make a purchase. If the telemarketer calls 200 people, would it be unusual for them to get 30 purchases?