**Exercise 1.1**

*A hospital administrator is planning a patient satisfaction survey. She wants to know the proportion of patients, among a population of approximately 5,000 treated at the hospital during the past 3 months, who say they were “completely satisfied” with various aspects of the hospital’s performance. She wants to be 95% confident that her estimates fall within ± 0.04 (±4%) of the population figure for each measure. How big a sample does she need? If she wanted a confidence interval of ±1% (instead of 4%) for the same estimates, how big a sample would she need?*

**±4%:**

**±1%:**

**Exercise 1.2**

*Given the information in Section 4.4.1, what would be the value of research if the manager never changed her mind and had the same 65% hit rate with or without information? What if the research improved the hit rate to 85%? What if the potential gain from each decision was $10,000 and the potential loss was $10,000?*

**Value if manager never changed mind:**

**Research improves rate to 85%:**

Potential gain/loss $10,000: