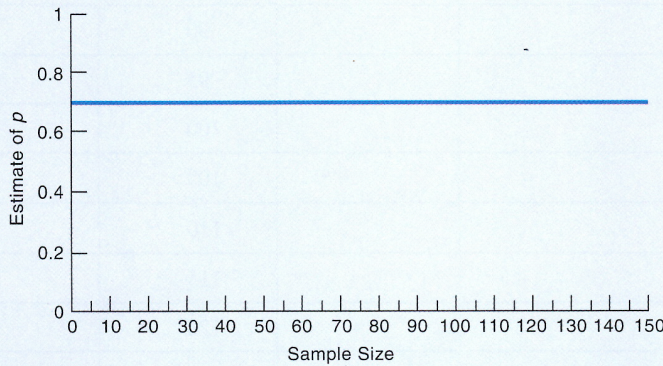


3. Display the relative frequency as a bar chart.
4. Complete the theoretical relative frequency column in the table by using the binomial table with $n = 5$ and $p = 0.70$.
5. Display the binomial distribution in a bar chart.
6. Compare the bar chart from step 3 with the binomial distribution displayed in step 5. How do they compare? Why are they different?
7. The graph below has a line at the theoretical value of p , 0.70. Graph your estimates of p for each sample on the same graph. What happens to your estimate as the sample size increases?



6.3.4 EXPLORING THE BINOMIAL DISTRIBUTION

You are becoming familiar with using the binomial probability tables and solving binomial probability problems, but you still may not understand what role the parameters n and p play in determining what the probability distribution of a binomial random variable looks like.

In Figure 6.1 you see the effects of changing the value of the parameter p for a fixed value of n . The graphs illustrate that when p is small, it is more likely that the

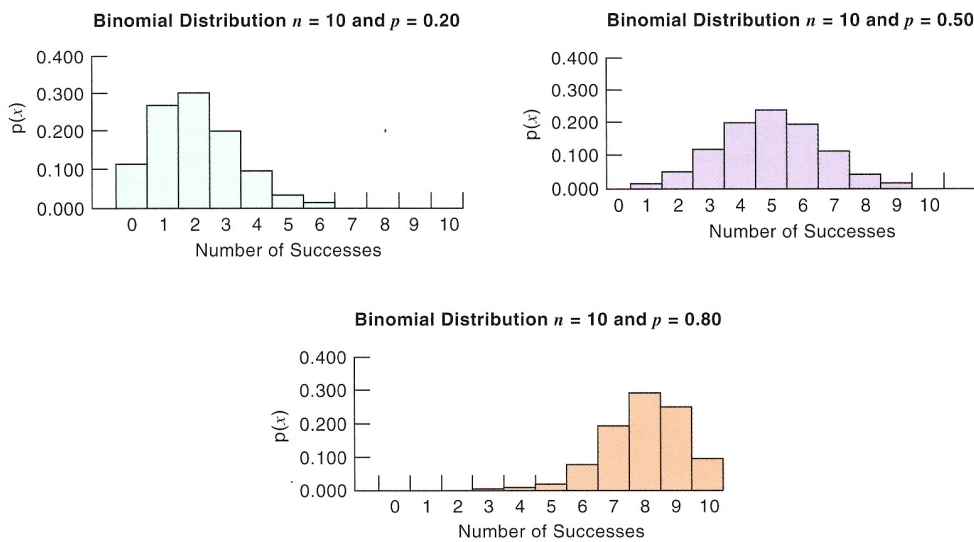


FIGURE 6.1 Effects of changing p when n is fixed