30. Live TV Based on a Comcast survey, there is a 0.8 probability that a randomly selected adult will watch prime-time TV live, instead of online, on DVR, etc. Assume that seven adults are randomly selected, and find the indicated probability.

a. Find the probability that exactly two of the selected adults watch prime-time TV live.

b. Find the probability that exactly one of the selected adults watches prime-time TV live.

c. Find the probability that fewer than three of the selected adults watch prime-time TV live.

d. If we randomly select seven adults, is two an unusually low number for those who watch prime-time TV live?

31. Too Young to Tat Based on a Harris poll, among adults who regret getting tattoos, 20% say that they were too young when they got their tattoos. Assume that five adults who regret getting tattoos are randomly selected, and find the indicated probability.

a. Find the probability that none of the selected adults say that they were too young to get tattoos.

b. Find the probability that exactly one of the selected adults says that he or she was too young to get tattoos.

c. Find the probability that the number of selected adults saying they were too young is 0 or 1.

d. If we randomly select five adults, is one an unusually low number who say that they were too young to get tattoos?

32. Tainted Currency Based on the American Chemical Society, there is a 0.9 probability that in the United States, a randomly selected dollar bill is tainted with traces of cocaine. Assume that eight dollar bills are randomly selected.

a. Find the probability that all of them have traces of cocaine.

b. Find the probability that exactly seven of them have traces of cocaine.

c. Find the probability that the number of dollar bills with traces of cocaine is seven or more.

d. If we randomly select eight dollar bills, is seven an unusually high number for those with traces of cocaine?

33. Death of Taxes Based on a Bellowes survey of adults, there is a 0.48 probability that a randomly selected adult uses a tax preparer to file taxes. Find the probability that among 20 randomly selected adults, exactly 12 use tax preparers to file their taxes. Among 20 random adults, is 12 an unusually high number for those who use tax preparers to file their taxes?

34. Career Choice Based on a Ridgid survey of high school students, 25% of high school students plan to choose a career in information technology. Find the probability that among 24 randomly selected high school students, exactly 6 plan to choose a career in information technology. Is it unlikely to find that among the 24 selected high school students, exactly 25% plan to choose a career in information technology?

35. On-Time Flights The U.S. Department of Transportation recently reported that 80.5% of U.S. airline flights arrived on time. Find the probability that among 12 randomly selected flights, exactly 10 arrive on time. Does that probability apply to the author, who must make 12 flights originating in New York?

36. Online Banking Based on data from a *USA Today* Snapshot, 72% of adults have security concerns about online banking. Find the probability that among 30 randomly selected adults, exactly 20 have security concerns. Among 30 random adults, is 20 an unusually low number for those who have security concerns?