

Exercise 8.2A Inductive Generalization

1. 1. From a one-gallon jar filled with 1,000 variously colored gumballs, Teddy grabbed five handfuls for a total of 157.
2. Out of the 157 gumballs 63 were red.

3. Therefore, almost 50 percent of all the gumballs are red.

 - (a) Sample: 157 gumballs
 - (b) Population: jar of 1,000 colored gumballs
 - (c) Target: color of gumballs
3. 1. Pat has been counseling families for ten years and has never yet seen a family that does not exhibit some form of dysfunction.

2. No families are functional.

 - (a) Sample: Pat's observations over ten years of counseling
 - (b) Population: all families
 - (c) Target: whether families are functional
5. 1. Scott has been an airplane mechanic working on airplanes for over eighteen years.
2. Scott says that the most common problem he encounters is negligent owners—owners that do not take proper care of their aircraft engines.

3. Probably all airplane mechanics would say the same.

 - (a) Sample: Scott's eighteen-year experience of working on airplanes
 - (b) Population: all aircraft mechanics
 - (c) Target characteristic: most common aircraft problem
7. 1. A 1998 poll by the Kaiser Family Foundation found that fully two-thirds of all parents say they are concerned "a great deal" about what their children are now exposed to on television.
2. Their biggest complain is sexual content, followed closely by violence, and then crude language.

3. A wide spectrum of Americans are appalled by what passes for TV entertainment these days.

 - (a) Sample: parents consulted in a 1998 poll by the Kaiser Family Foundation
 - (b) Population: all parents nationwide
 - (c) Target characteristic: parents' opinion of what their children are exposed to on television
9. 1. Lauren, a six-year-old, gets 30 minutes of happiness each day from her Barbie doll.

2. Therefore, all six-year-olds will get at least 30 minutes of happiness each day from a Barbie doll.

 - (a) Sample: one member, six-year-old Lauren
 - (b) Population: all six-year-old children
 - (c) Target characteristic: 30 minutes of happiness from a Barbie doll
11. 1. A survey of 1,500 businesses nationwide found that 16.4 percent of businesses used the Internet for selling, with Web-based sales accounting for 14.3 percent of total store sales.

2. Therefore, the Internet is drawing customers away from shopping at the malls.

 - (a) Sample: 1,500 businesses nationwide
 - (b) Population: businesses at the nation's malls
 - (c) Target: percentage of shopping done on the Internet
13. 1. Six years of observations of Mary Jane's real estate business showed that sales halt in the winter and pick up in the spring.

2. Therefore, sales in the future will probably stop in the winter and pick up in the spring.

 - (a) Sample: six years of observations of one real estate business
 - (b) Population: sales in the future
 - (c) Target: business activity year-round
15. 1. In 1999 more than 16.5 millions tons of rock salt was used to de-ice roads in the United States.
2. That amount increased in 2000 to approximately 19 million tons.

3. Therefore, the amount used each year for the next several years will probably be even greater.

 - (a) Sample: reports from 1999 and 2000 of amount of rock salt used
 - (b) Population: use of rock salt for next several years
 - (c) Target: tons of rock salt used to de-ice roads nationally