

CHAPTER 12

Solutions to the Even-Numbered Questions in the Text

12.2A

2. Sample biased (it will undercount the poor and unemployed).
4. Sample biased (houses displaying the warning are likely to have aggressive breeds of dog).
6. Sample size too small.

12.2B

2. Use a random digit dialer to call 1,600 American adults and ask if they are satisfied with our health care system.
4. Have pollsters stand outside the theaters where the movie is playing and—using a random number generator—ask 1,600 people exiting to say whether they liked the movie.
6. Collect as large a number of peaches as you can reasonably get and taste from the orchard, making sure that they come from different places in the orchard, and different heights on the tree.

12.2C

2. Assumes that Jones performed badly.
4. The phrase “exerted himself” is vague.
6. The majority answer to this vague question is ‘It depends’—i.e., on what services they are looking for, whether they live near a branch, how often they need an ATM, and so on.

12.3

2. Sample is biased—only one university.
4. Sample size too small (just one patient).
6. Sample size too small (just the person who wrote the ad).
8. Sample size too small (just the letter writer, her son, and the six girls in the powder-room).
10. Sample size rather small (200 students), and possibly biased (all from Texas?). Worse, since Vogelman is a private security guard, it is unlikely the students felt comfortable answering his queries.

12.4

2. You have been wounded in the abdomen and are on your way to the hospital.
4. Someone wants to serve rat meat for dinner.
6. You are recovering from a cancer operation.
8. The other person is trying to kill you.
10. Your elders are in jail for murder.

12.5

2. Sample is Suzie, population is people generally, projected property is liking hamburgers. Relevant property is whether Suzie is vegetarian or vegan.
4. Sample is Al, population is freshmen at Cow U, and the projected property is having taken algebra in high school. Relevant property is Al's major.
6. Sample is Fred, population is Californians, and the projected property is voting for Jones. Relevant property is whether Fred is eligible to vote.
8. Sample is Sue, population is people, and the projected property is liking cheese. Relevant property is whether Sue has heart disease.
10. Sample is Mandy-the-dog, the population is all dogs, and the projected property is being unable to dance. Relevant property is special training for Mandy.

12.6A

2. A child can't comprehend the concept of terminal illness, and if she could, it would frighten and depress her.
4. Your neighbor may well use the gun to kill himself or other people.
6. You can't hit if you are wearing a cast.
8. When another country commits a heinous act of war, peace talks are no longer relevant.
10. Crossing the border to visit your sick child is different from committing violent crimes for self-benefit.

12.6B

2. Problem = doctors, nutritionists, and vitamins not identified.
Label = faulty appeal to authority.
4. Problem = only one instance is cited for the claim that shellfish is harmful. Sample size too small.
Label = faulty generalization.
6. Problem = misapplies the general rule to cover even self-protection.
Label = faulty instantiation.
8. Problem = this person generalizes from one atypical case (a woman speeding to help her sick child).
Label = faulty generalization.
10. Problem = generalizes on California boys, who are not necessarily typical of the rest of America.
Label = faulty generalization.

12. Problem = only seven cases over 10 years cited—sample size too small. Also, it is at only one university. Sample is biased.
Label = faulty generalization.
14. Problem = only one case cited—sample size too small.
Label = faulty generalization.

12.7

2. Faulty instantiation.
4. Faulty generalization.
6. Faulty generalization.
8. Faulty instantiation.
10. Composition (individual tigers eat a lot, but there are not very many tigers in the world, so collectively they don't).