5. population; Every high school student is counted.

7. sample; The survey is given to a subset of the population of spectators.

9. population: every adult age 18 and over in the United States, sample: the 1152 adults age 18 and over who were surveyed; The sample consists of 403 adults who pretend to use their smartphone to avoid talking to someone, and 749 adults who do not.

11. population: every high school student in the district, sample: the 1300 high school students in the district who were surveyed; The sample consists of 1001 high school students who like the new healthy cafeteria food choices, and 299 high school students who do not.

13. statistic; The average annual salary of a subset of the population was calculated.

15. parameter; The percentage of every student in the school was calculated.

19. a. The maker's claim is most likely true.
    b. The maker's claim is most likely false.

21. possibly, but extremely unlikely; The result is unlikely to occur by chance. The sample size of the population is too small to make such a conclusion.

25. simulation 2; Simulation 2 gives a better indication of outcomes that are not likely to occur by chance.