

- 16. Area Codes.** The area codes (such as 617) of the telephones of survey subjects
- Discrete or Continuous.** In Exercises 17–28, state whether the data described are discrete or continuous and explain why.
- 17. Aircraft Baggage.** The numbers of checked bags on flights between San Francisco and Atlanta
- 18. Aircraft Baggage.** The weights of checked bags on flights between San Francisco and Atlanta
- 19. Flights.** The total numbers of flights by different airlines between San Francisco and Atlanta in the past month
- 20. Flights.** The lengths in minutes of each of the flights between San Francisco and Atlanta in the past month
- 21. Chemistry.** An experiment in chemistry is repeated, and the times it takes for a reaction to occur are recorded.
- 22. Test Times.** The times required by students to complete a statistics test
- 23. Test Scores.** The numerical scores on a statistics test
- 24. Traffic Count.** Number of cars crossing the Golden Gate Bridge each hour
- 25. Car Speeds.** The speeds of cars as they pass the center of the Golden Gate Bridge
- 26. Movie Ratings.** The movie ratings by a critic, with 0 stars, 1/2 star, 1 star, and so on
- 27. Stars.** Number of stars in each galaxy in the universe
- 28. Cola.** The exact amounts of cola in different cans
- Levels of Measurement.** For the data described in Exercises 29–40, identify the level of measurement (nominal, ordinal, interval, or ratio).
- 29. Weights of Textbooks.** Weights of college textbooks
- 30. Movie Ratings.** A critic's movie recommendations of "must see," "good," "fair," "poor," or "avoid"
- 31. Movie Types.** Types of movies (drama, comedy, etc.)
- 32. Temperatures.** Body temperatures in Fahrenheit of all students in a statistics class
- 33. Cars.** Classifications of cars by size as subcompact, compact, intermediate, full-size
- 34. Clinical Trial.** Results from a clinical trial consisting of "true positive," "false positive," "true negative," or "false negative"
- 35. Grades.** Final course grades of A, B, C, D, F
- 36. Distances.** Distances traveled by college students as they drive from their homes to their colleges
- 37. SSN.** Social Security numbers
- 38. Weights.** Weights of the cola in cans of Diet Coke
- 39. Word Counts.** Numbers of words spoken in a day by a sample of males
- 40. Car Safety Ratings.** *Consumer Reports* safety ratings of cars: 0 = unsafe up to 3 = safest
- Meaningful Ratios?** In Exercises 41–48, determine whether the given statement represents a meaningful ratio, so that the ratio level of measurement applies. Explain.
- 41. Movie Rating.** A movie with a 4-star rating is twice as good as one with a 2-star rating.
- 42. Wind Speed.** Wind with a speed of 40 mi/h moves four times as fast as wind with a speed of 10 mi/h.
- 43. IQ Score as a Measure of Intelligence.** One subject has an IQ score of 140 while another subject has an IQ score of 70, so the first subject is twice as intelligent as the second subject.
- 44. Temperatures.** On August 6, it was 80°F in New York City, so it was twice as hot as on December 7, when it was 40°F.
- 45. Art Dating.** Using carbon dating, one sculpture is found to be 1,000 years old while a second sculpture is found to be 500 years old, so the first sculpture is twice as old as the second.
- 46. Carbon Dating.** Using carbon dating, one sample of wood is found to be twice as old as another, because the first sample is found to be 200 years old while the other sample is 100 years old.
- 47. Salary.** An employee with a salary of \$150,000 earns twice as much as one with a \$75,000 salary.
- 48. SAT Scores.** A person with an SAT score of 2200 is twice as qualified for college as a person with a score of 1100.
- Complete Classification.** In Exercises 49–56, determine whether the data described are qualitative or quantitative and give their level of measurement. If the data are quantitative, state whether they are continuous or discrete. Give a brief explanation.
- 49. Marathon Times.** Finish times of the New York City Marathon
- 50. Marathon Runners.** Home nations (such as U. S., France, Kenya) of runners in a marathon
- 51. Employee ID Numbers.** The employees of the Teletronics Corporation have six-digit identification numbers that are randomly generated.
- 52. Employee Service Times.** Seniority of each employee at the Teletronics Corporation is based on the length of time that has passed since the employee was first hired.
- 53. Employee Hiring Years.** The years in which employees were hired (such as 2000, 1995, 2012) are used to determine their pension plan.
- 54. Political Survey.** In a survey of voter preferences, the political parties of respondents are recorded as coded numbers 1, 2, 3, 4, or 5 (where 1 = Democrat, 2 = Republican, 3 = Liberal, 4 = Conservative, 5 = other).
- 55. Product Ratings.** *Consumer Reports* magazine lists ratings of "best buy," "recommended," or "not recommended" for each of several different computers.
- 56. Quality Control.** Apple tests each of its manufactured iPhones and labels each as acceptable or defective.