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4. Sample answer: stem-and-leaf plot or box-and-whisker plot; shows how data is distributed

5. Sample answer: line graph; shows changes over time

6. Sample answer: dot plot or bar graph; shows the number of times each outcome occurs

7. Sample answer: line graph; shows changes over time

8. a. yes; The pictograph shows the number of hours worked each month using pictures. b. yes; The bar graph shows the number of hours worked each month.

9. a. yes; The circle graph shows the data as parts of the whole.
   b. no; The bar graph shows the number of students, not the portion of students.

10. when the data are in terms of intervals of one category, as opposed to multiple categories; Sample answer: You can use a histogram to display the frequencies of voters in the last election by age group.

11. The pictures of the bikes are the largest on Monday and the smallest on Wednesday, which makes it seem like the distance is the same each day.

12. The break in the scale for the vertical axis makes it appear as though there is a greater difference in sales between months.

13. The intervals are not the same size.

14. The widths of the bars are different, so it looks like some months have more rainfall.

15. Sample answer: bar graph, pictograph, or dot plot: each bar can represent a different vegetable.
    circle graph: the most popular vegetable would be represented by the largest section of the circle

16. yes; The vertical axis has a scale that increases by powers of 10, which makes the data appear to have a linear relationship.

17. Sample answer: dot plot or bar graph, because you can quickly see which response appears most commonly in the set

18. a. The percents do not add up to 100%.
    b. Sample answer: bar graph; it would show the frequency of each sport.