7.4 Practice A

1. line graph; data over time

2. bar graph; data in categories

3. histogram; frequency in intervals of same size

4. scatter plot; relationship between two data sets

5. Break in vertical axis; It looks like many more apples were sold.

6. The size of the age intervals is not the same.

7. scatter plot; showing a relationship between two data items

8. Line graph; the data is over time.

9. box-and-whisker plot; wants to show variability of a data set

10. Pictograph; kindergartners do not do well with numbers.

11. stem-and-leaf plot; wants both order and distribution

7.4 Practice B

1. bar graph; data in categories

2. histogram; frequency in intervals of same size

3. scatter plot; relationship between two data sets

4. circle graph; shows data as parts of a whole

5. It looks like equal amounts of fruit were consumed, until you look at the key.

6. Unequal spacing on the vertical axis does not show the larger number of occurrence in the older age groups.

7. line plot; wants to show the number of times each value occurs

8. stem-and-leaf plot; median is explicitly shown

9. scatter plot; shows relationship between two data sets

10. circle graph; shows data as parts of a whole

11. **a.** A pictograph does not show the kind of precise data a Board of Directors would need.
    b. A better choice would be a line graph.

Answers

1. **a.** 2005   **b.** $120,000

    c. There is a negative relationship between year and number of donations.

2. negative relationship

3. no relationship

4. positive relationship

5. *Sample answer:* circle graph; shows data as parts of a whole

6. *Sample answer:* line graph; shows changes over time

7. yes; The break in the vertical axis makes it appear that the amount of money raised increased very rapidly from month to month.

8. **a–b.**

Cats Adopted

Month
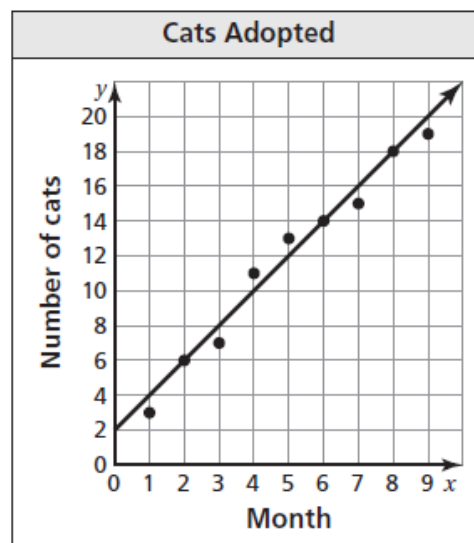
c. *Sample answer:* $y = 2x + 2$

d. *Sample answer:* 22 cats