# Answers to Course 1 Unit 6 Practice

LESSON 27-1

1. C; This is the only question for which there is variability.

2. D; There is no variability in the answer to this question.

3. Sample question: How many floats are in the parade?

4. Sample question: How many songs did each band play while on the parade route?

5. Sample question: How old are each of the cars in the antique car section?
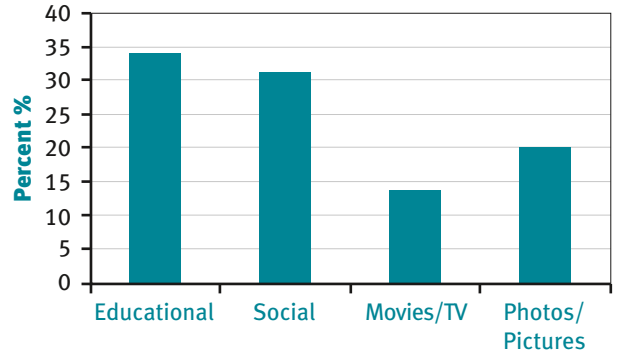
LESSON 27-2

6. **a.**

Markers by Color
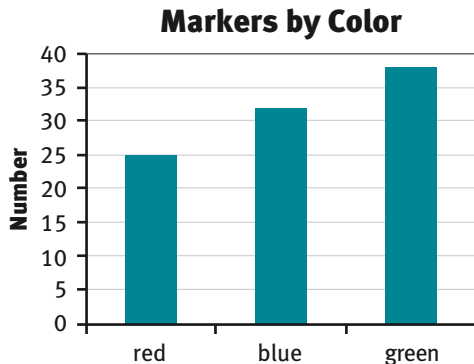
   b. Green because there are more green markers than any other color.

7.

Apps on tablet		Count	Fraction	Percent
	Educational	12	$\frac{12}{35}$	34.3%
	Social	11	$\frac{11}{35}$	31.4%
	Movies/TV	5	$\frac{1}{7}$	14.3%
	Photos/Pictures	7	$\frac{1}{5}$	20%

Apps on My Tablet

8.
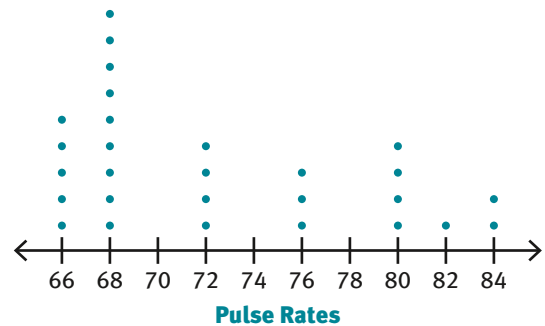
Pulse Rates

9. The pulse rates of the students are widely distributed but skewed right. The most common pulse rate is 68 beats per minute.

10. **a.**

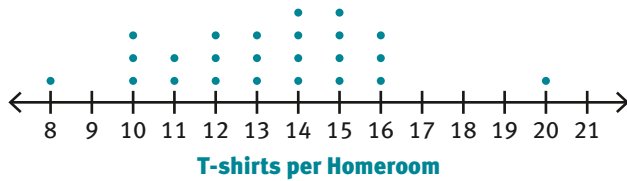| Stem	Leaf
0	8 9
1	1 2
2	0 5 8
3	0 0 0 0 2 2 5 5
4	0 0 3 5
5	0
6	1
7	0

Key: 2|0 = 20 mph

   b. It is easier to see where the majority of the data values are. It is easier to see trends in the data.

LESSON 27-3

11. Dot plot

12.

T-shirts per Homeroom

13. D

14. Yes, because it shows how many students in each homeroom, are planning on buying T-shirts so the student council can plan on buying that many.
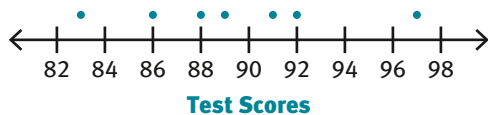
15. They need to order around 360. There are 24 homerooms, and the most common number planning to buy is 14 or 15. Multiplying 24 by 15 is 360, so this will give some extra T-shirts to sell.

LESSON 28-1

16. 89.4

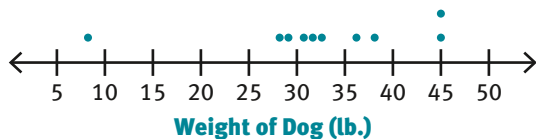**17.** 84.3 is her new mean.

18.

Test Scores

19. Sacorra's scores are widely and uniformly distributed. Her highest score is 97, and her lowest score is 83.

20. Her data does not seem to contain any outliers. None are too far apart from the others.

LESSON 28-2

21.

Weight of Dog (lb.)

**22.** The dog with a weight of 8 pounds seems to be an outlier. It is much smaller than the others.

23. With the outliers, the median is 32.5; with the outlier, the median is 33. The median is not affected greatly by the outlier. It is just 0.5 more.

24. With the outliers, the mean is 32.5; without the outlier, the mean is 35.2. The mean is more affected by the outlier than the median is. It raises almost 3 pounds.

25. The mean is more affected because the mean is the balance point of the data and when the 8 pounds is included, the balance point is moved quite a bit to the smaller side. The median is just a middle data point and when that data point is removed, the median moves to the next larger data point.

LESSON 28-3

26.

Hours of Television Viewed
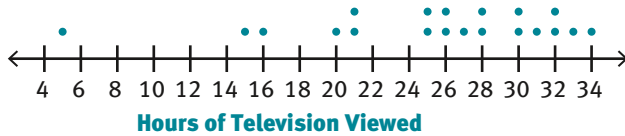
27. The hours of tv watched varies, but most people watch between 25 and 35 hours of tv weekly. The shape is slightly skewed to the left.

28. The mean is 25.3 hours, and the median is 26 hours.

29. They are very close to each other, so it does not matter which measure is used.

30. The mean will be greater than the median because the points to the right pull the mean to the right of the median.
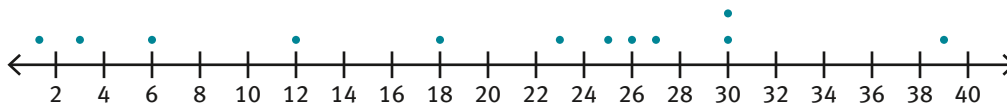
LESSON 29-1

31. 14

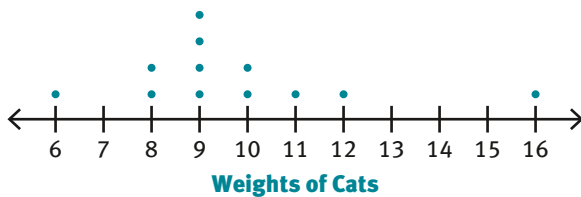**32. a.** 0.4

b. It is somewhat symmetrically distributed.

33. a. 38

b.

34. a. 10

b.

Weights of Cats

c. This data is skewed right.

A3

LESSON 29-2

35.

| Ounces of Water Drank Daily	Distance from the Mean
64	20
20	24
30	14
35	9
60	16
55	11
56	12
42	2
38	6

36. 12.7 ounces

37. The data set has a variability of almost 13 ounces from the mean.

38. The data set on the left has a greater MAD because the data points are spread out further meaning that more data points are further from the mean.

39. The data set on the right has the least MAD because the scores are slightly closer together meaning the data points are closer to the mean.

LESSON 29-3

40.

Medals Won in 2012 Olympics
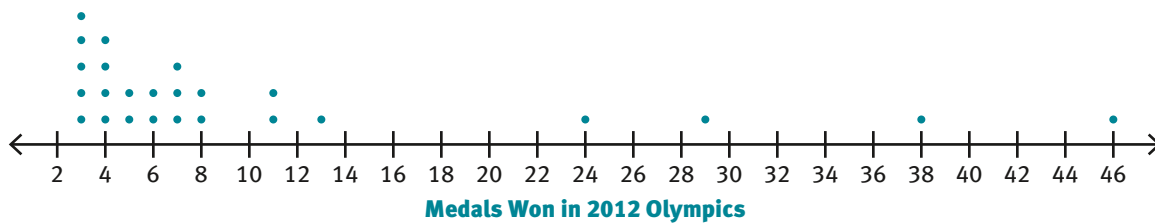
41. 6

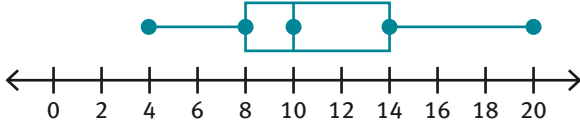**42.** Lower quartile: 4; Upper quartile: 11

43. 7

44. 12

LESSON 30-1

45. Lower extreme-4; lower quartile-8; median-10; upper quartile-14; upper extreme-20

46.

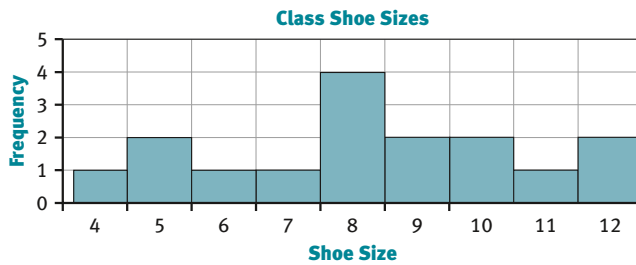
47. 63 inches

48. 62 inches

49. 68 inches

50. The mean height for the boys is 4 inches taller than for the girls. The tallest one-half of the boys are taller than the tallest girl. The shortest one-fourth of the girls are shorter than all of the boys.
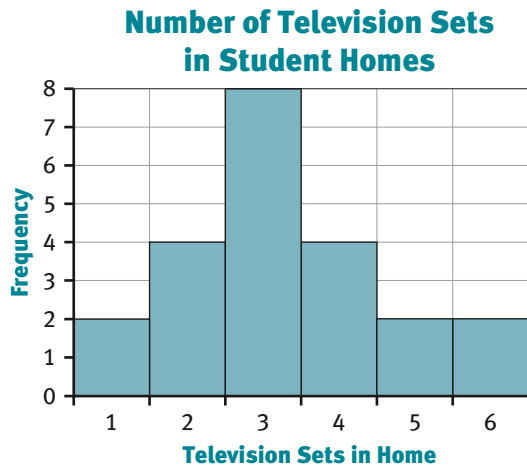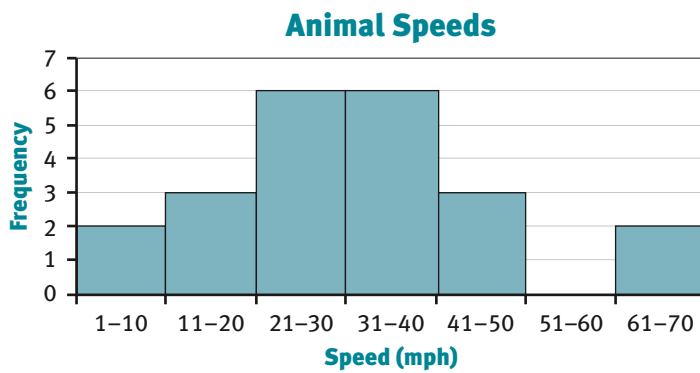
LESSON 30-2

51. B

52.

53–54.

55. The distribution is symmetrical. Most students have 2, 3, or 4 television sets in their home.

LESSON 30-3

56.

Animal Speeds	Frequency
1–10	2
11–20	3
21–30	6
31–40	6
41–50	3
51–60	0
61–70	2

57.

58.

Animal Speeds	Frequency
1–20	5
21–40	12
41–60	3
61–80	2

59.
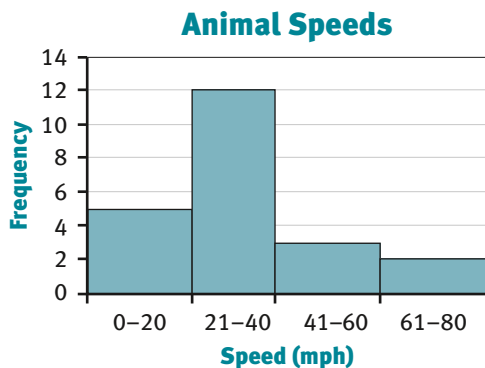
60. The histogram with intervals of ten gives a more accurate summary because the intervals are more precise.

A6