For full credit, show all your work.

Choose the answers that best match the following measurements.

1.	A quarter would weight about: A a kilogram B a gram C a liter D a milliliter
2.	The amount of saline you put on your contact to clean it: A a gram B a liter C a kilogram D a milliliter
3.	Your fingernail is about how thick? A a kilometer B a centimeter C a liter D a millimeter
4.	The distance from DIS to CSHS is about: A a milliliter B a kilometer C a meter D a centimeter

5.-6. **Use a proportion for each conversion** and then determine the answer. Show all work on a separate sheet of paper.

Unit	Convert to…	Unit	Convert to…
128 pints	gal	3500 km	m

7.	**Customary-Metric Conversion Factors** 1 fluid ounce ≈ 29.6 milliliters 1 quart ≈ 0.946 liter 1 gallon ≈ 3.79 liters The picnic committee bought 30 liters of lemonade. There were 4 liters left over. How many gallons of lemonade were used at the picnic? (nearest hundredth)	
8.	The committee also brought a 500 milliliter bottle of root beer for Mr. Mangham. How many fluid ounces of root beer did they bring for Mr. Mangham? (nearest hundredth)	
9.	Popcorn kernels are sold in one-pound bags. If four ounces of kernels make two quarts of popped corn, how many bags of kernels will I need to make ten gallons of popped popcorn?	
10.	A 2 gallon container is three-fourths full. How many ounces are needed to fill it all the way?	

Find the mean, median, mode, and range for the following set of data. Show all work.

11.-14.	44, −60, −60, 85, 20, 85	Mean: Median:	Mode: Range:

| 15. | Mr. Mangham bought 7 tigers for $580. If he bought one more for $76, what was the mean cost of the 8 tigers? | |
| 16. | Mr. Underwood is playing a game where the low score wins. The other players had scores of 28, 32, 24, and 35. If Mr. Underwood won the game and the range of scores was 14, what was his score? | |

Use the following data to answer the questions below. Show all work.

Animal	Longevity (years)	Animal	Longevity (years)
Cat	12	Dog	12
Guinea pig	3	Hippo	30
Horse	25	Lion	10
Parakeet	8	Wolf	11
Giant Tortoise	125	Golden Eagle	45
Cow	10	Rabbit	7
Hamster	2	Human	80
Kangaroo	6		

	Lower Quartile	Upper Quartile		Lower Quartile	Upper Quartile
Left column	17.	18.	Right column	19.	20.

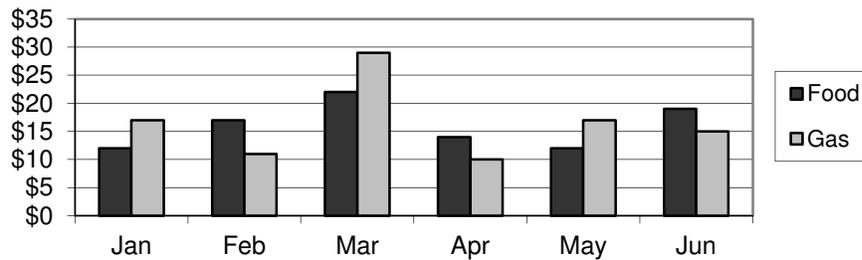| 21. | Which of the following best describes the shape of the dot plot below?

Days Between Failure

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

A   Skewed left   C Symmetrical
B   Skewed right   D None of the above | |

Use the graph below to answer the following question.
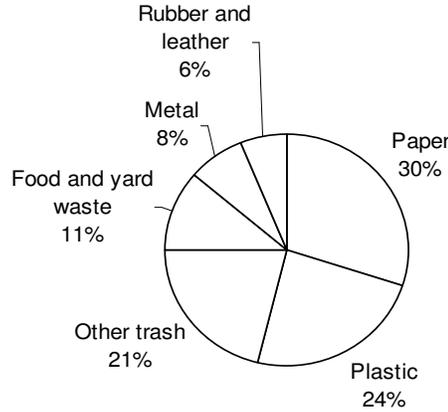
Money Spent Each Month

| 22. | Which statement is best supported by these data?

A   In January, twice as much money was spent of gas compared to food.
B   More money is spent each month on food than gas.
C   The largest percent decrease on gas was from March to April.
D   The median cost month for food was June. | |

23.	 What is the interquartile range for the Checkers Club?	
24.	In the problem above, which data set shows a greater spread? A Chess Club C They have the same spread. B Checkers Club D You cannot tell from the box plots	
25.	The list below shows the number of minutes Addison spent reading on each of six days. 90, 60, 89, 94, 60, 93 Which two measures of these data best describe the typical number of minutes Addison spent reading each day? A Mean and mode C Mode and range B Mean and median D Median and range	

	The circle graph below shows the materials in US landfills. Which of the following statements is NOT supported by the graph?
26.

Rubber and leather 6%
Metal 8%
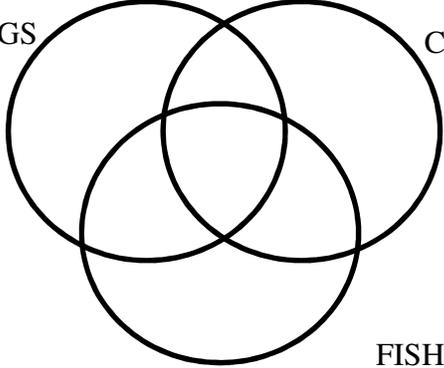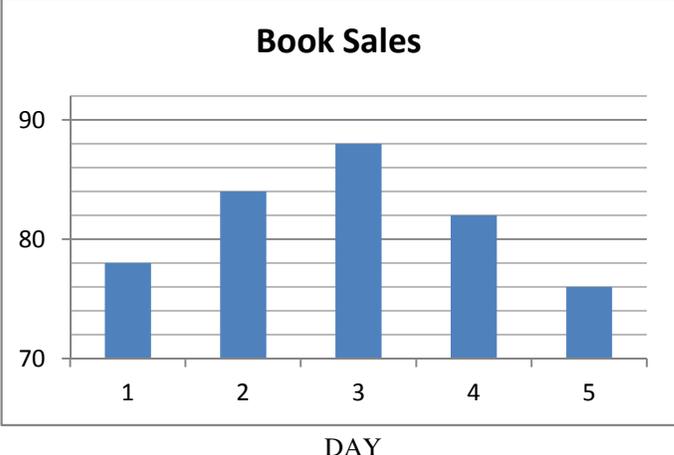Food and yard waste 11%
Paper 30%
Other trash 21%
Plastic 24%

A Paper and other trash make up more than half of US landfills.

B Rubber and leather and food and yard waste make up $\frac{1}{4}$ of US landfills.

C The amount of plastic is triple the amount of metal in US landfills.
D The amount of paper is more than twice the amount of metal in US landfills. |
| 27. | The data in the table below show the number of lunch items sold at a school snack bar in one day. Which statement is best supported by these data?

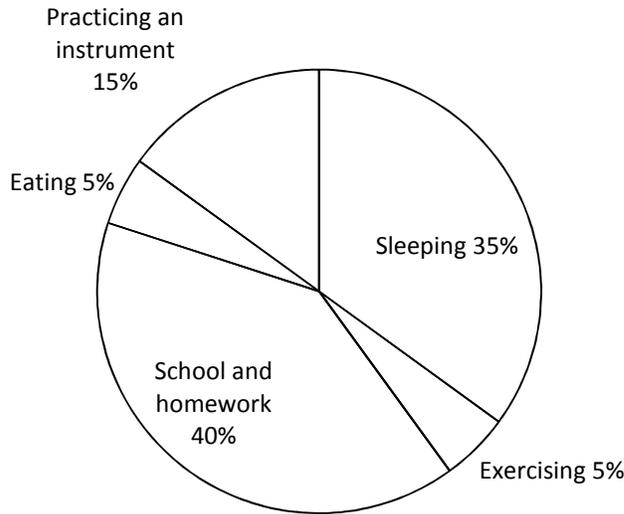| Lunch item	Number sold
Slice of pizza	170
Hamburger	80
Nachos	130
Regular milk	200
Chocolate milk	110

A There are a total of 690 students attending classes at the school.
B The number of students who bought hamburgers is 50% of the number of students who bought nachos.
C There are 300 students at the school who do not like hamburgers.
D The number of students who bought chocolate milk is 55% of the number of students who bought regular milk. |

28.	The list below shows Wendy's bowling scores in her last five games. 112, 123, 136, 145, 159 Which measure of data best describes how much these bowling scores varied? A Mean B Median C Mode D Range	
29.	The following are the results of a recent poll of intermediate school students: • A total of 25 students had dogs. • A total of 28 students had cats. • A total of 30 students had fish. • There were 9 students who had only dogs and cats. • There were 13 students who had only cats and fish. • There were 7 students who had only dogs and fish. • There were 4 students who had dogs, cats, and fish. Complete the Venn diagram below to represent the pet survey results. DOGS CATS FISH	
30.	The graph below shows the number of books sold at a book fair in 5 days. **Book Sales** NUMBER OF BOOKS SOLD 90 80 70 1 2 3 4 5 DAY Based on the graph, which statement is true? A The number of books sold on Day 3 was twice the number of books sold on Day 1. B The number of books sold on Day 5 was half the number of books sold on Day 2. C The number of books sold on Day 5 was about 93% of the number of books sold on Day 4. D The number of books sold on Day 1 was about 12% of the number of books sold on Day 3.	

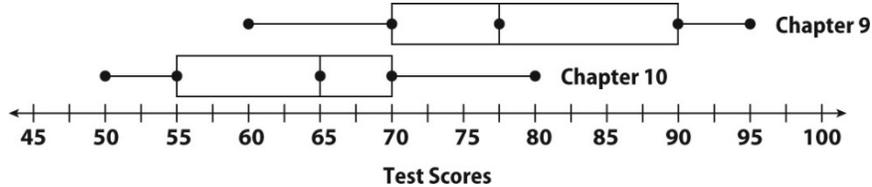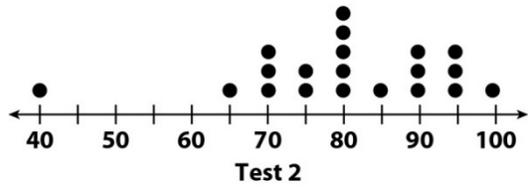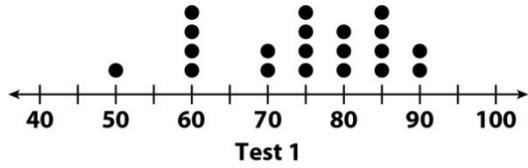|		
31.	Ted created a graph to show the percentages of time he spends on different activities during a school day. **Ted's Activities** Practicing an instrument 15% Eating 5% Sleeping 35% School and homework 40% Exercising 5% Ted concluded from the graph that he spends about 48 hours at school and doing homework during a five-day school week. Which statement about Ted's conclusion is true? A Ted's conclusion is invalid because $\frac{1}{4}$ of 120 is 30. B Ted's conclusion is invalid because 40% of 24 is 9.6. C Ted's conclusion is valid because 40% of 120 is 48. D Ted's conclusion is valid because $\frac{1}{4}$ of 192 is 48.	
32.	Chapter 9 Chapter 10 45 50 55 60 65 70 75 80 85 90 95 100 **Test Scores** Which test had a larger median and by how much?	
33.	Which test has a larger spread based on the interquartile range? Which test has a larger spread based on the range?	
34.	Marisol graphed a scatter plot of the number of hours she rode her bicycle (x) and the distance traveled (y). She drew the trend line and calculated its equation to be $y = 10x + 4$. What is the predicted distance Marisol rode her bicycle if she rode for 2.5 hours?	

35.

Girls

Boys

The dot plots compare the number of raffle tickets sold by boys and girls during a school fund-raiser. Which plot has an outlier?

　　A　Girls　　　　　　　　C　Both plots
　　B　Boys　　　　　　　　D　Neither plot

36.

In the problem above, what is the difference between the medians for the two data sets?

　　A　0 tickets　　　　　　C　4 tickets
　　B　2 tickets　　　　　　D　6 tickets

37.

Children's Ages
7, 4, 7, 7, 2, 10, 12, 8, 7, 4

The data set shows the ages of a random sample of children under 14 who live in an apartment building. Make a dot plot to display the data.

38.

Make a box plot to display the data in the problem above.

39. In the problem above, what is the median age?

40.

What is the range for the data shown in the stem-and-leaf plot below?

Stem	Leaves
2	1 2 3 4 4 5
3	1 3 5 5 9
4	0 1 2 8 8 9
5	0 1 4 4 7

Key: 2|1 means 21

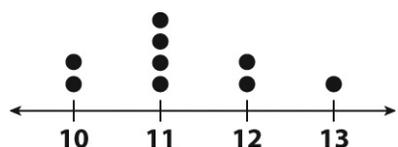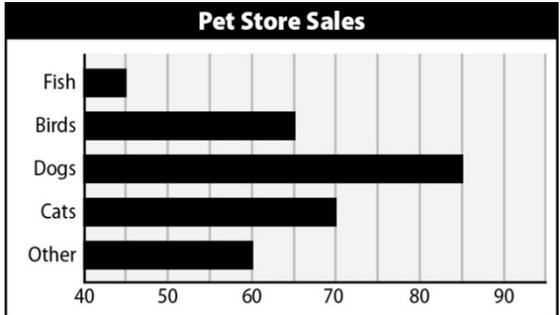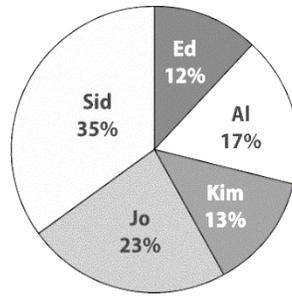|		

41.	**Test 1**
	
	Test 2
	
	The dot plots show 20 scores on two different tests. What is the difference in the ranges?
	
	    A 5 points C 20 points
	    B 10 points D 35 points	

42.	In the problem above, which test has a greater median?
	
	    A Test 1
	    B Test 2
	    C They have the same median.
	    D You cannot tell from the dot plots.	

43.	What is the median of the data represented in the dot plot below? 	
44.	 The bar graph shows the number of animals sold at a pet store in one week. What percent of the dogs and cats sold were cats? (nearest percent)	

45.	Which of the following describes a situation in which a data set with a low mean absolute deviation is preferable?
	
	    A A car dealership sells cars at different prices.
	    B A factory manufactures computers of different sizes and shapes.
	    C A food-processing plant fills each can with the same amount of soup.
	    D A clothing store sells shirts in different sizes.	

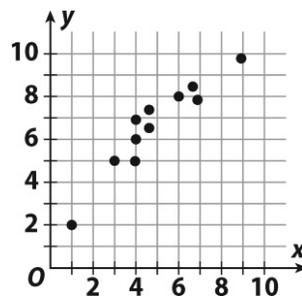|		
46.	In a club election, 200 votes were cast. The circle graph below shows the results. Ed 12% Sid 35% Al 17% Kim 13% Jo 23% How many votes did Jo get?	
47.	Wally recorded the length in inches of 10 newborn babies at the hospital. The results are shown in the table below. What is the mean absolute deviation for length of a newborn baby? | 20	22	19	24	23
18	21	24	25	22 | A 1.8 in. B 2.2 in. C 3.6 in. D 21.8 in.	
48.	**Harry's Hamburger Sales** 	**Shop**	**A**	**B**	**C**
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Total Orders in Sample	200	100	50
Total Cheeseburgers	80	40	30	 Harry owns three hamburger shops. He analyzed a random sample of sales from each of his shops to determine what proportion of his customers order cheeseburgers. Which of the samples above would be the most reliable to use for this study?	
49.	In the problem above, if the total sales at each shop are 600 orders, how many cheeseburgers are sold at each shop?	
50.	Which of the following is **not** shown on the scatter plot below? A a cluster C positive association B negative association D an outlier	