Unit 2 Study Guide
Describing the Shape of the Data

Know the following vocabulary:

Data-a collection of facts, such as measurements and values; often organized into graphs and charts

Bar Graph-a graph drawn using rectangular bars to show how large each value is; the bars can be horizontal or vertical

Outlier-a value that lies outside most of the other data in a set of values Ex: Data: 3, 24, 26, 28, 25, 48   Outliers: 3 and 48

Representation- a way to represent or show data such as in a graph or chart

Median-the middle number in a sorted list of numbers (put the numbers in order **first**)

10 11 13 15 16 23 26
          middle number

Survey-a method of collecting a sample of data by asking people questions

Conclusion-information taken from looking at data

Value-the numerical worth or amount

Practice Problems:

1. What is the range for this set of data?

Data Set
12, 19, 17, 21, 13, 10, 7

2. What is the median for the data in this table?

22	24	28
19	20	22
25	29	31

SAP COLLECTED FOR
MAPLE SYRUP

Day	Gallons
Monday	50
Tuesday	30
Wednesday	80
Thursday	90
Friday	30

3. Use the table above. Which statement does NOT describe the data?

⦿   A. A different amount of sap was collected every day.

◯   B. The amount of sap collected each day was less than 100 gallons.

◯   C. The least amount of sap collected was 30 gallons.

◯   D. The greatest amount of sap was collected on Thursday.

4. Jolene measured the heights of her tomato plants in inches. This is her data: 31, 22, 40, 34, 30, 31, 26, 25, 28, 26, 20, 25, 19, 43, 38, 31, 38 How many plants were greater than 36 inches?

○　A.　2 plants

○　B.　4 plants

○　C.　9 plants

○　D.　17 plants

5. Joyce measured the heights of her strawberry plants in inches. This is her data: 19, 10, 28, 22, 28, 19, 14, 13, 16, 14, 8, 13, 7, 31, 26, 19, 26 How many plants were greater than 24 inches?

○　A.　5 plants

○　B.　8 plants

○　C.　9 plants

○　D.　17 plants

6. Longfellow Elementary School received a gift of money. Students in grades 1–5 voted on how to spend the money, for either playground equipment or field trips. The results are given in the table. If you show the data on a double bar graph, which of the following will have the longest bar?

How Should We Spend the Money?

Grade	Number of Votes for Playground Equipment	Number of Votes for Field Trips
1	18	5
2	14	7
3	13	12
4	5	17
5	2	22

○　A.　Grade 3 votes for playground equipment

○　B.　Grade 4 votes for field trips

○　C.　Grade 5 votes for field trips
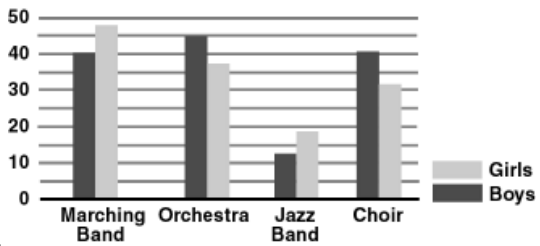
○　D.　Grade 1 votes for playground equipment

NEWSPAPER RECYCLED AT WESTSIDE RECYCLING CENTER

Month	Tons
March	35
April	51
May	28
June	55
July	46
August	50

7. Use the table above. Which would be the least likely value for September?

○ A.   20 tons

○ B.   30 tons

○ C.   40 tons

○ D.   50 tons

8. The following double bar graph shows the number of students in the 4th-grade musical groups.
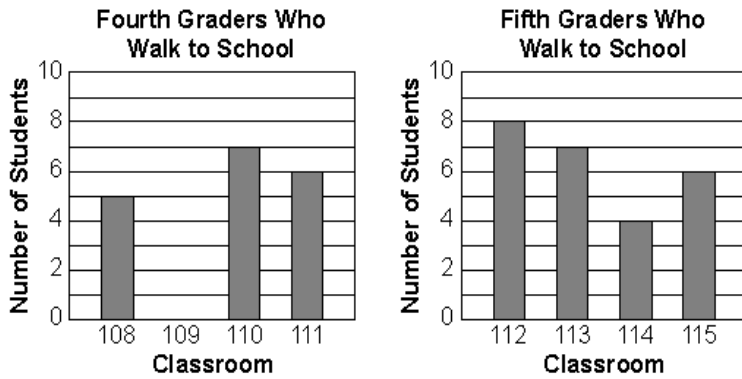

Which of the following statements is true?

○ A.   The marching band has more girls than boys.

○ B.   There are more girls than boys in the orchestra.

○ C.   There are as many boys as there are girls in the choir.

○ D.   The orchestra has the least 4th-grade students.

9. Mike kept track of his spelling test scores. The median score is 88. What does this tell you about Mike's test scores?

○ A.   Half of Mike's scores were 88 or higher.

○ B.   Most of Mike's scores were 88.

○ C.   Mike did not have any perfect tests.

○ D.   The range of Mike's scores was 44.

10. These bar graphs show the number of students in fourth and fifth grade classes who walk to school. What conclusion can be made?

○ A. More fourth graders than fifth graders walk to school.

○ B. Classroom 110 has the greatest number of students who walk to school.

○ C. There are students in every fourth and fifth grade class who walk to school.

○ D. More fifth graders than fourth graders walk to school.

11. Kyle kept track of his spelling test scores. The median score is 86. What does this tell you about Kyle's test scores?

○ A. The range of Kyle's scores was 43.

○ B. Most of Kyle's scores were 86.

○ C. Kyle did not fail any of the tests.

○ D. Half of Kyle's scores were 86 or higher.

12. What survey question would you use if you wanted to know what time 1st graders and 4th graders go to bed on school nights?

○ A. What time did you go to bed last Saturday night?

○ B. What time do you go to bed on school nights?

○ C. How many hours a day do you sleep?

○ D. Do you like to play computer games?

13. Mrs. Mayekar surveyed her students about their favorite sports and recorded the results in a table.
Only Zach, Lucille, Benito, and Francenza picked basketball. Which of the following could be the table
Mrs. Mayekar made?

○ A.

FAVORITE SPORTS

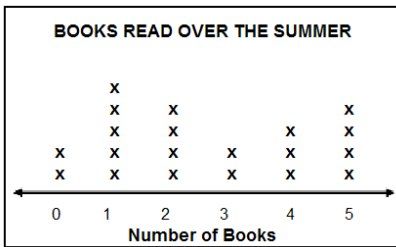| Baseball | 卌 I |
| Basketball | 卌 I |
| Soccer | 卌 IIII |

○ B.

FAVORITE SPORTS

Baseball	卌 卌 II
Basketball	卌
Soccer	IIII

○ C.

FAVORITE SPORTS

Baseball	卌 III
Basketball	IIII
Soccer	卌 IIII

○ D.

FAVORITE SPORTS

Baseball	IIII
Basketball	卌 IIII
Soccer	卌 III

BOOKS READ OVER THE SUMMER

14. Use the line plot. How many students read more than 3 books?

○ A.   4 students

○ B.   5 students

○ C.   7 students

○ D.   9 students

15. Create 3 expressions that equal 1, 005. You must use addition and subtraction and you may not use the number 5.

1.

2.

3.