

TEST NAME: **6.SP. 3-5**
TEST ID: **1030125**
GRADE: **06 - Sixth Grade**
SUBJECT: **Mathematics**
TEST CATEGORY: **My Classroom**

Student: _____
Class: _____
Date: _____

1. **Statistical data for four data sets are shown below.**

Data Set 1: Median 15 Absolute mean deviation 8
Data Set 2: Median 16 Absolute mean deviation 6
Data Set 3: Median 17 Absolute mean deviation 17
Data Set 4: Median 18 Absolute mean deviation 13

For which data set is there most likely the least variation in its values?

- A. Data Set 1
- B. Data Set 2
- C. Data Set 3
- D. Data Set 4

2. José recorded the data below about the number of colors in each of 6 flags.

2, 2, 2, 4, 6, 8

What number could **not** be used to represent the center of the data?

- A. 2
- B. 3
- C. 4
- D. 6

3. Which is a true statement about a measure of center and a measure of variation?

- A. A measure of center is the same as a measure of variation.
- B. A measure of center describes how the numbers vary within a data set, while a measure of variation summarizes the data.
- C. A measure of center summarizes the data, while a measure of variation describes how the numbers vary within a data set.
- D. A measure of center determines the center of the data, while a measure of variation measures how the data varies with another data set.

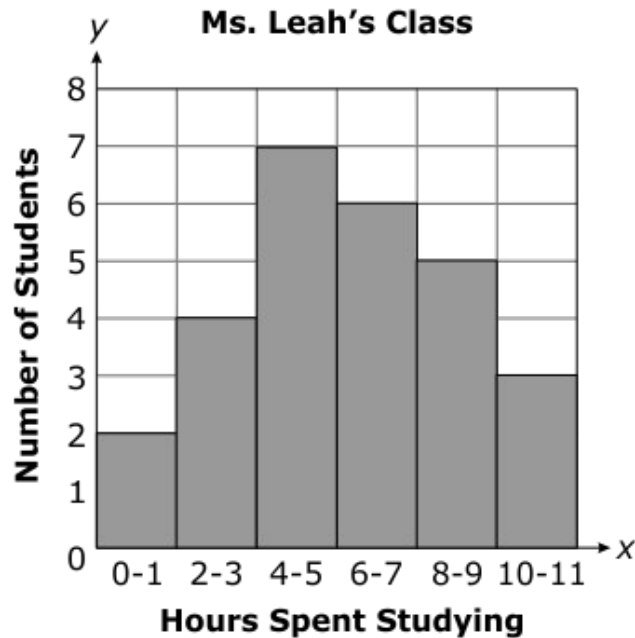
4. A city's daily rainfall for four weeks is listed in this table.

Week	Rainfall Totals (in inches)						
	M	T	W	Th	F	Sa	Su
1	0.80	0.00	0.35	0.05	0.00	0.00	0.01
2	0.00	0.00	0.00	0.23	0.25	0.02	0.00
3	0.00	0.49	0.28	0.08	0.00	0.40	0.30
4	0.76	0.55	0.26	0.00	0.02	0.42	0.00

Which week had the highest median daily rainfall?

- A. Week 1
- B. Week 2
- C. Week 3
- D. Week 4

5. Ms. Leah asked her students how many hours they spend studying each week. She created the histogram below from the results.



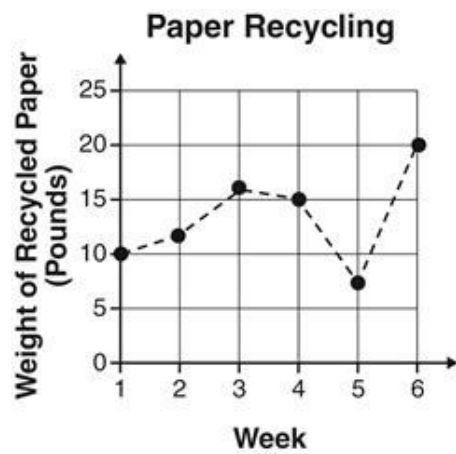
How many students spent at least 8 hours per week studying?

- A. 5
- B. 6
- C. 8
- D. 14
6. Students in a class kept a record of the amount of paper they collected for recycling over a 6-week period. The information they recorded is shown in the table.

Paper Recycling	
Week	Amount (Pounds)
1	10
2	12
3	7
4	15
5	16
6	20

Which graph correctly displays the information from the table?

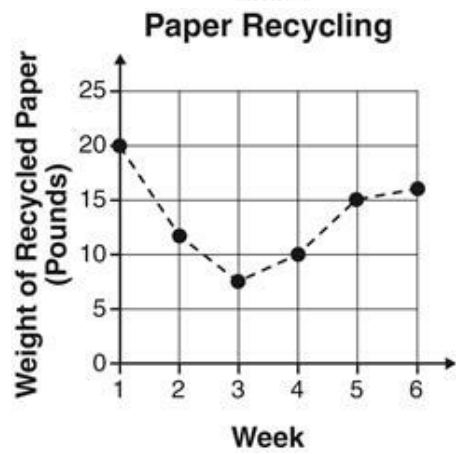
A.



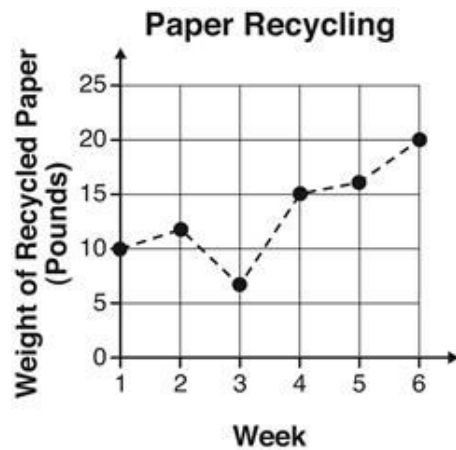
B.



C.



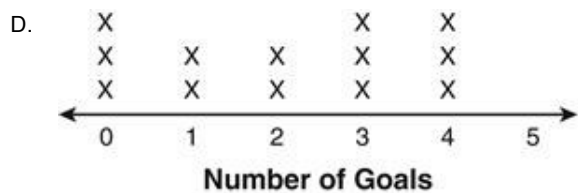
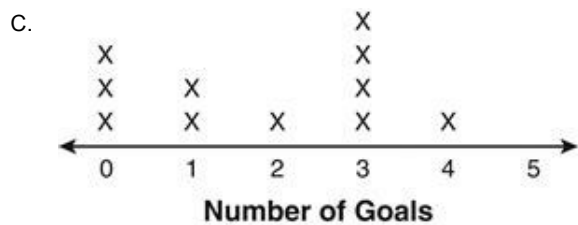
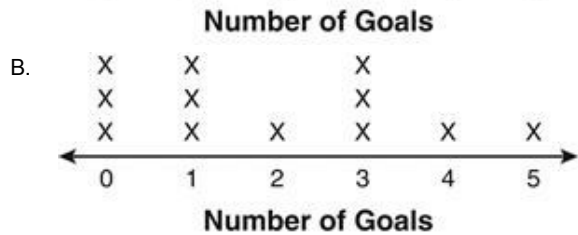
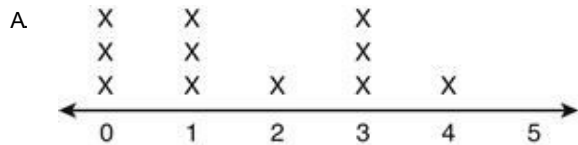
D.



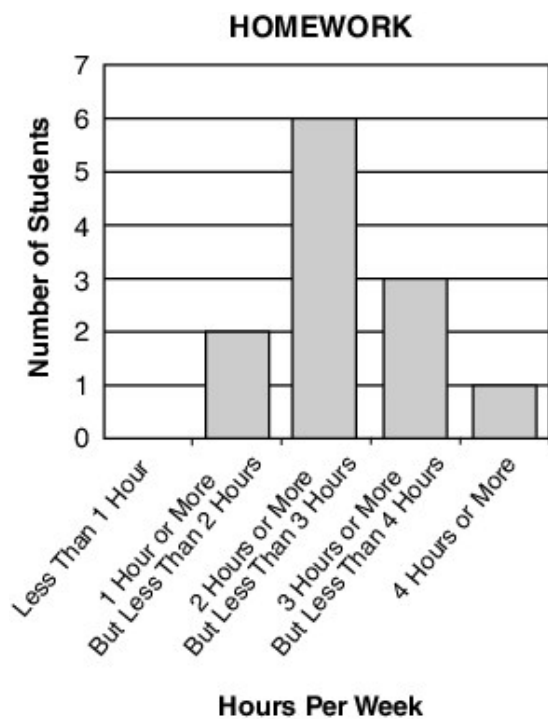
7. The table shows the number of goals a hockey team scored in their last 11 games.

Game	1	2	3	4	5	6	7	8	9	10	11
Goals	1	0	1	0	0	3	2	3	4	3	3

Which line plot corresponds to the data in the table?



8. Sarah asked her classmates how many hours they spend on homework per week. She constructed the histogram shown below to represent her data.



Which data set matches her histogram?

A

Student	Homework Hours Per Week
Luis	4.2
Abby	3.7
Douglas	3.6
Vanessa	3.4
Haley	2.9
June	2.8
Maggie	2.5
Oliver	2.5
Jerome	2.2
Fran	2.0
Bryce	1.9
Ebony	1.8

B.

Student	Homework Hours Per Week
Luis	4.2
Abby	4.0
Douglas	3.6
Vanessa	3.4
Haley	2.9
June	2.8
Maggie	2.5
Oliver	2.5
Jerome	2.2
Fran	2.0
Bryce	1.9
Ebony	1.8

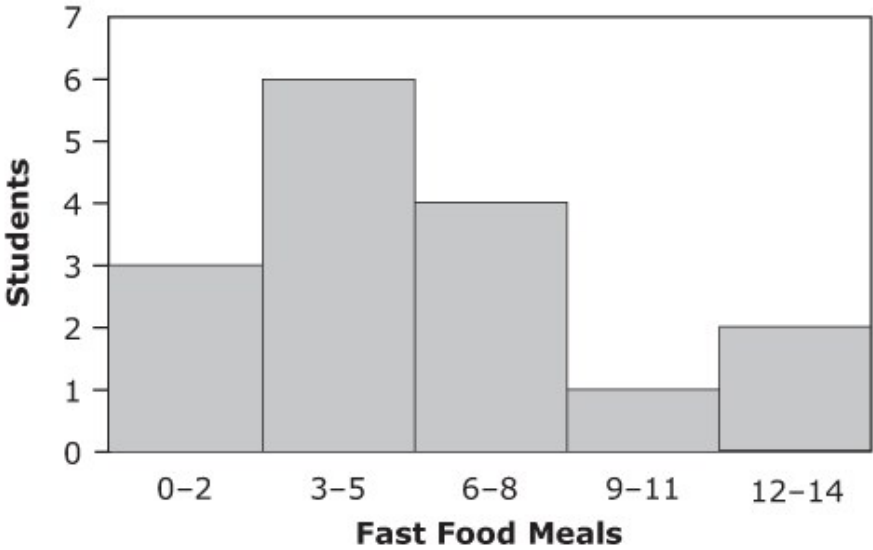
C.

Student	Homework Hours Per Week
Luis	4.2
Abby	3.7
Douglas	3.6
Vanessa	3.4
Haley	2.9
June	2.8
Maggie	2.5
Oliver	2.5
Jerome	2.2
Fran	2.0
Bryce	1.9
Ebony	0.9

D.

Student	Homework Hours Per Week
Luis	4.2
Abby	3.7
Douglas	3.6
Vanessa	3.4
Haley	3.0
June	2.8
Maggie	2.5
Oliver	2.5
Jerome	2.2
Fran	2.1
Bryce	1.9
Ebony	1.8

9. The school nurse observed several 6th grade students at lunch. She recorded how many students brought fast food meals as their lunch during a 3-week period. She made this histogram.



Which number represents how many students the school nurse observed?

- A. 5
- B. 6
- C. 14
- D. 16

10. The stem-and-leaf plot below shows the ages of the people who responded to a political survey.

Ages of Survey Responders	
2	0 0 1 2 4 5 6
3	0 4 4 7 7 7 8 9 9
4	1 2 2 3 5 5 7 9
5	2 3 5 5 6 7 7
6	0 6 8 8 8 9
7	1 2 2 5

Key: 2 | 3 = age 23

Which range of ages had the greatest number of responses to the survey?

- A. 10–29
 - B. 30–49
 - C. 50–69
 - D. 70–89
11. Juanita asked fifth and sixth grade students to place a lunch order for the school picnic. She organized their orders on the frequency table below.

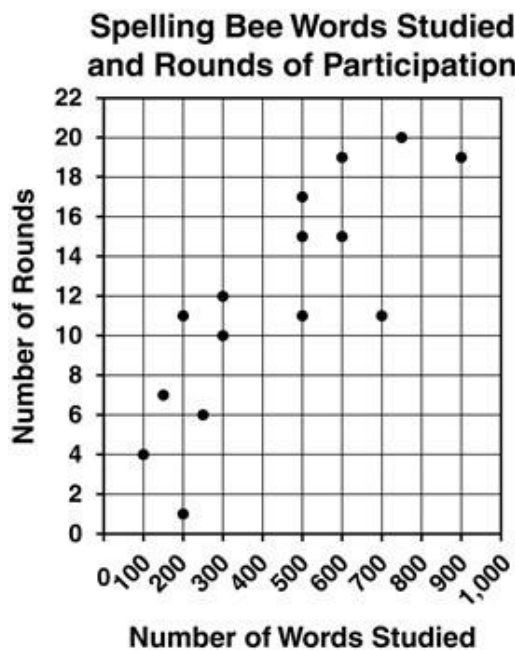
MEAL CHOICES

Type of Meal	Fifth Grade	Sixth Grade	Total
Hamburger	25	15	40
Cheeseburger	18	15	33
Chicken	15	12	27
Veggie Burger	10	28	38
Total	68	70	

How many students ordered lunch for the picnic?

- A. 68
- B. 70
- C. 128
- D. 138

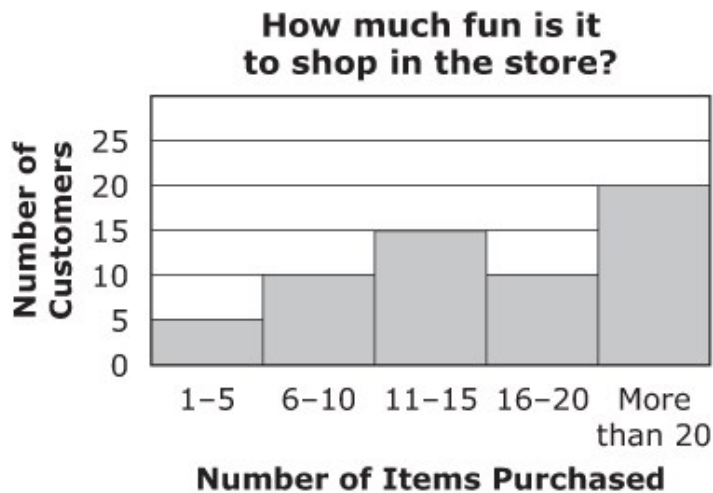
12. The scatterplot shows information about the number of words students reported studying and the number of rounds they participated in during the city spelling bee.



How many students are represented in the data?

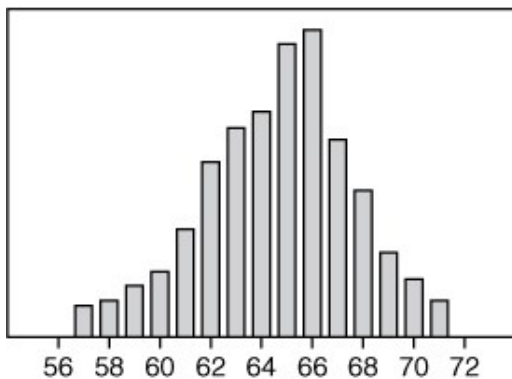
- A. 10
 - B. 13
 - C. 15
 - D. 18
13. A basketball team played 20 games this season. Which method could be used to determine the average number of fans who attended the games?
- A. Count the number of fans at each game and divide the total by 20.
 - B. Count the number of fans at the first and last game and divide the total by 2.
 - C. Count the number of fans at the first and last game and find the difference.
 - D. Count the number of fans at each game and find the difference between the maximum and minimum number of fans.

14. A store manager wants to answer the question “How much fun is it to shop in the store?” He decides to gather data.



Which statement describes the attribute the manager chose to measure “how much fun” the customers had shopping?

- A. The amount of money spent by each customer.
 - B. The number of items purchased by each customer.
 - C. The amount of time each customer spent in the store.
 - D. The number of friends each customer met in the store.
15. Look at the graph below.



Which attribute is most likely being measured?

- A. height of adult women in inches
- B. age in months of pennies in circulation
- C. miles traveled to work by residents of a city
- D. weight of pumpkins in pounds at a marketplace

16. Jasmine was studying house values in her town. She found that the median house value was \$92,000. What does this median mean?
- A. \$92,000 is the most frequent house value.
 - B. The middle half of all the houses has a value of \$92,000.
 - C. Half the houses are worth less than \$92,000 and half are worth more than \$92,000.
 - D. All the house values were added together and that sum divided by the number of houses to get \$92,000.
17. The table shows the number of students in 5th grade classes at Welsh Elementary.

Number of Students
in Sixth Grade

Class	Number of Students
Mrs. Austin	26
Mr. Brown	26
Mrs. Kelly	28
Ms. Jones	30
Mrs. Gilbert	25

What is the mean number of students in these classes?

- A. 25
 - B. 26
 - C. 27
 - D. 28
18. During the week, Kiana, kept a log of how many hours she spent after school on homework.

Homework Log

Day	Hours
Monday	3
Tuesday	2.5
Wednesday	2.5
Thursday	2
Friday	1.5

Based on the information in the table above, which would best describe her homework habits?

- A. Kiana studied an average of 2.3 hours a week.
- B. The range is so spread out; it appears Kiana has inconsistent study habits.
- C. Kiana spends, on average, at least 20% of each day doing homework.
- D. The data indicates that Kiana studies more towards the end of the week.

19. Ms. Kean measured the heights of 9 students in centimeters. The results are listed below.

147 151 145 146 151 151 147 145 151

What is the median height of the students?

- A. 145 cm
- B. 147 cm
- C. 148 cm
- D. 151 cm

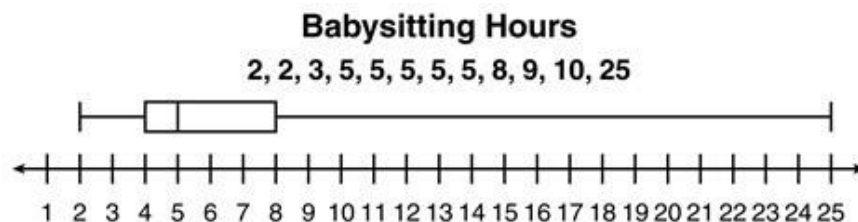
20. The table shows the number of minutes that Susie spent on her homework.

Day	Time (in minutes)
Monday	17
Tuesday	35
Wednesday	12
Thursday	41
Friday	21
Saturday	0
Sunday	35

What was the mean (average) time in minutes that Susie spent on her homework?

- A. 21
- B. 23
- C. 27
- D. 35

21. Shelley babysits her neighbor's children. The hours Shelley babysat over the last 12 weeks are shown.



Based on this information, which measure of center and variability is not the best representation of these data?

- A. range
- B. mean
- C. mode
- D. median

22. Four sets of test scores are shown below. For which set is the mean score least representative of the individual scores?

- A. 90, 90, 90, 90, 90
- B. 0, 90, 90, 100, 100
- C. 0, 20, 30, 60, 90, 100
- D. 80, 80, 90, 100, 100, 100

23. The scores on Christi's last 10 science quizzes are shown.

60 75 80 80 86 88 91 92 95 98

Based on Christi's scores, which measure of center and variability is the best representation of this data?

- A. mean
- B. mode
- C. range
- D. median