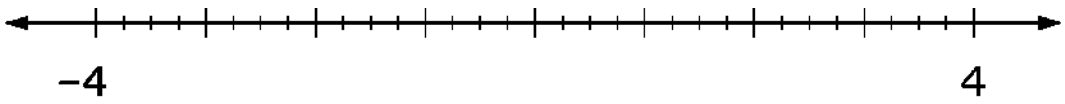
Name _____ Period _____ Date _____

PART 1 - Grade 6 Unit 2 Model Curriculum Assessment – NO CALCULATOR

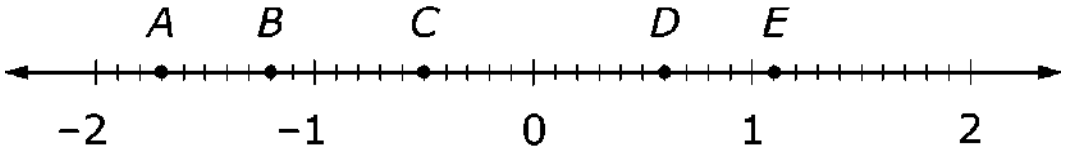
1. Plot each of the following six numbers on the number line below, and label each point with the corresponding number.

$$3,\ \frac{1}{2},\ -2,\ 0,\ -3\frac{1}{4},\ 2$$



2. Brendan says that the negative of $-\frac{1}{3}$ is 3 because they are on opposite sides of zero when they are plotted on the number line. Is Brendan correct? Explain your answer.

3. In the table below, write the number that corresponds to each point on the number line shown.



Point	Number
A	
B	
C	
D	
E	

4. Compare each of the following pairs of rational numbers by filling in the blank with $<$ or $>$.

5 _____ -10 $\qquad\qquad$ -42.89 _____ -51.52

$-4\frac{7}{8}$ _____ $-4\frac{2}{3}$ $\qquad\qquad$ $\frac{15}{4}$ _____ $\frac{24}{7}$

5. The numbers -6, -6.8, and $-6\frac{1}{5}$ are located on a number line.

Complete each of the following sentences

by filling in the blank with the word **left** or **right**.

-6 is to the _____ of -6.8 on the number line.

-6.8 is to the _____ of $-6\frac{1}{5}$ on the number line.

-6 is to the _____ of $-6\frac{1}{5}$ on the number line.

6. The Valdés Peninsula in the country of Argentina has an elevation of -131 feet. Death Valley in California has an elevation of -282 feet. Is the elevation of Death Valley lower than the elevation of the Valdés Peninsula? Explain your answer.

7. Indicate whether each of the following inequalities is correct or incorrect by checking the appropriate box in the table below.

Inequality	Correct	Incorrect
$-46 > -38$		
$-\frac{4}{5} < -\frac{1}{2}$		
$-21 > -21\frac{1}{3}$		

8. Christopher uses $\frac{2}{3}$ cup of ice cream to make a root beer float, Sean uses $\frac{7}{12}$ cup of ice cream, and Jennifer uses $\frac{5}{8}$ cup of ice cream. Which of the following correctly compares the three amounts of ice cream?

a. $\frac{2}{3} > \frac{7}{12} > \frac{5}{8}$

b. $\frac{2}{3} > \frac{5}{8} > \frac{7}{12}$

c. $\frac{7}{12} > \frac{5}{8} > \frac{2}{3}$

d. $\frac{7}{12} > \frac{2}{3} > \frac{5}{8}$

9. Which of the statements is true?

a. When the point $-15.9, 32.8$ is reflected over the *x*-axis, the image is the point $-15.9, -32.8$.

b. When the point $-15.9, 32.8$ is reflected over the *y*-axis, the image is the point $-15.9, -32.8$.

c. When the point $-15.9, 32.8$ is reflected over the *x*-axis and then the *y*-axis, the image is the point $-15.9, -32.8$.

d. When the point $-15.9, 32.8$ is reflected over the *y*-axis and then the *x*-axis, the image is the point $-15.9, -32.8$.

10. In the coordinate plane, the coordinates of point A are $\left(6\frac{5}{8}, -4\right)$. Point A is reflected over the y-axis to point B. What are the coordinates of point B ?

a. $\left(6\frac{5}{8}, 4\right)$

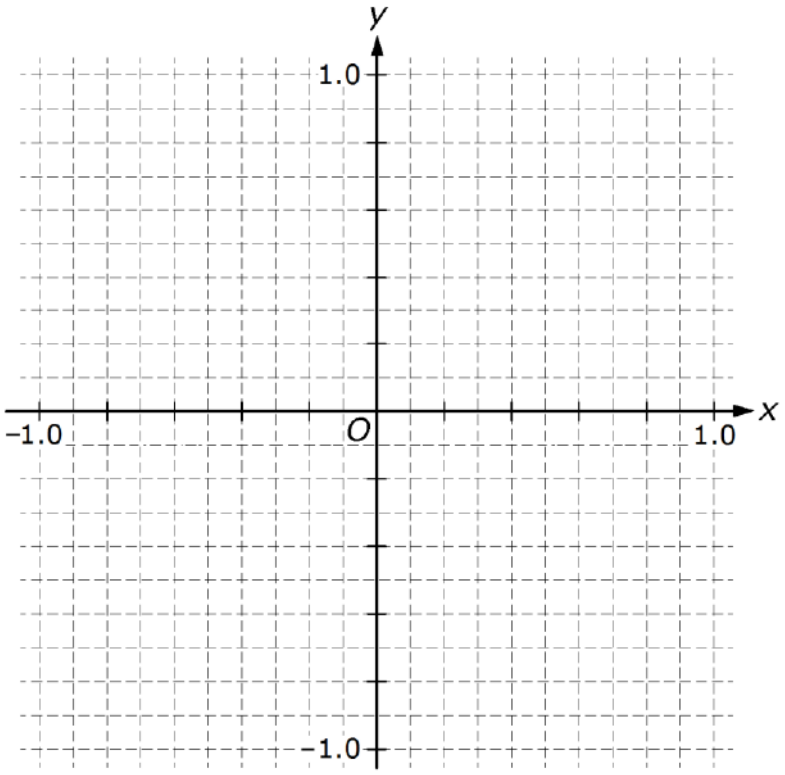
b. $\left(4, 6\frac{5}{8}\right)$

c. $\left(-4, -6\frac{5}{8}\right)$

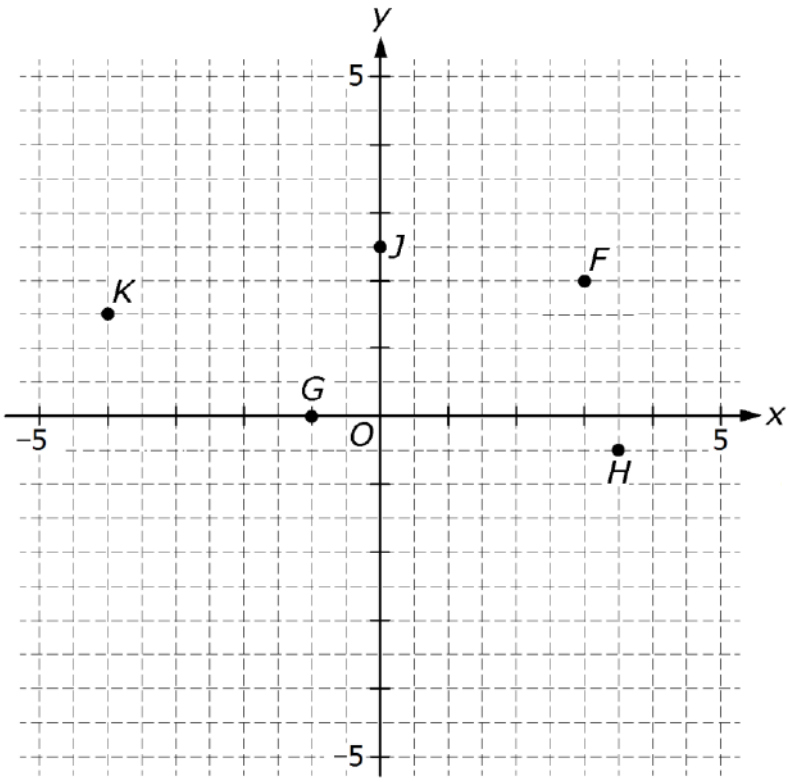
d. $\left(-6\frac{5}{8}, -4\right)$

11. Plot each of the following five points on the coordinate plane below, and label each point with the corresponding letter.

A $0.2, 0.5$, B $-0.3, 0.1$, C $0, -0.4$, D $-0.8, -0.6$, E $0.7, 0$



12. Five points are plotted in the coordinate plane shown. In the table below, write the coordinates that correspond to each point.



Point	Coordinates
F	
G	
H	
J	
K	

13. Ms. Ruiz asked the students in her class how they would use reflections to describe how the points $2, 3$ and $-2, -3$ in the coordinate plane are related. Aaliyah said that she would reflect $2, 3$ over the *y*-axis first and then reflect that point over the *x*-axis to get to $-2, -3$. Yusuf said that he would reflect $2, 3$ over the *x*-axis first and then reflect that point over the *y*-axis to get to $-2, -3$. Circle neither name, one name, or both names below to show who is correct, and then explain your choice.

Aaliyah Yusuf

14. The table below shows the ending October balances of the accounts of four students. Which student owes the **least** amount of money?

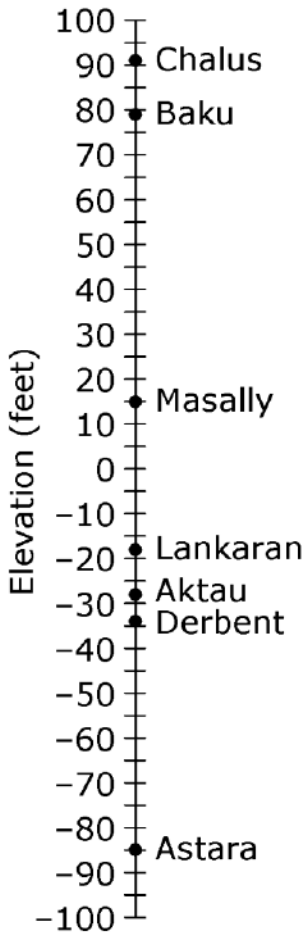
Adult	Balance
Dylan	−$19.25
Elise	−$42.75
Francesca	−$23.00
Jamaal	−$35.50

a. Dylan
b. Elise
c. Francesca
d. Jamaal

15. The table below shows the goals for, goals against, and the resulting goal difference for seven Italian soccer teams at the end of the 2011—2012 season. AC Siena's goal distance fell equally between which two teams' goal differences? Explain your answer.
(Note: Goal Difference $=$ Goals For $-$ Goals Against)

Team	Goals For	Goals Against	Goal Difference
Juventus	68	20	48
AC Milan	74	33	41
AS Roma	60	54	6
AC Siena	45	45	0
Fiorentina	37	43	-6
Palermo	52	62	-10
AC Cesena	24	60	-36

16. The number line below represents the elevation, in feet, of seven cities around the Caspian Sea in Asia. The elevation at sea level is 0 feet. Which of these cities have an elevation that is more than 75 feet away from sea level?



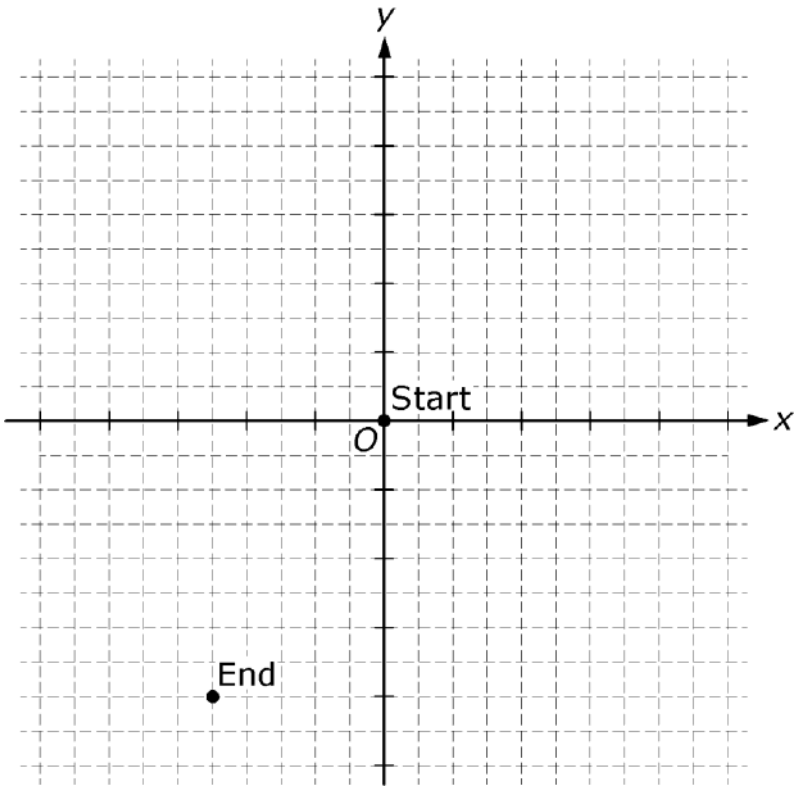
17. Sara plotted the locations of the trees in a park on a coordinate grid. She plotted an oak tree, which was in the middle of the park, at the origin. She plotted a maple tree, which was 10 yards away from the oak tree, at the point $(10, 0)$. Then she plotted a pine tree at the point $(-2.4, 5)$ and an apple tree at the point $(7.8, 5)$. What is the distance, in yards, between the pine tree and the apple tree in the park? Each grid unit is equal to one yard.

a. 2.2
b. 5.4
c. 9.4
d. 10.2

18. The streets in the city of Benton are laid out like a coordinate grid. The middle school is located at the point $(-2, -3)$. The library is located 8 blocks away from the middle school. Indicate whether each coordinate pair could represent the location of the library by checking the appropriate box in the table. Each grid unit is equal to one block.

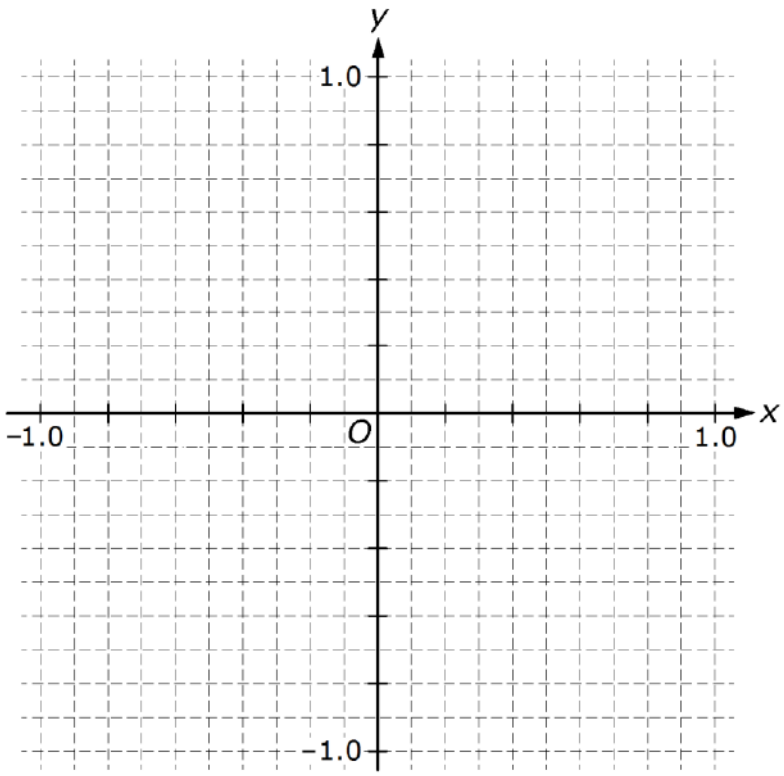
Coordinate Pair	Could Represent the Location of the Library	Could **NOT** Represent the Location of the Library
$(-2, 11)$		
$(-2, -11)$		
$(6, -3)$		
$(-10, -3)$		

19. In Mathville, the streets are laid out like a coordinate grid, and the distance from one intersection to the next on the same street is always 120 meters. Ada walked from the intersection of 0^{th} Avenue and 0^{th} Road to meet a friend at the intersection of -5^{th} Avenue and -8^{th} Road, as shown on the coordinate plane. She only walked along the streets. What is the distance, in meters, of the shortest route Ada could have taken walking along the streets? Explain your answer.



20. Keith and Reggie live in the city of Hainesville, which is laid out like a coordinate grid. Keith's house is located at the point $0.4, -0.9$, and Reggie's house is located at the point $0.4, 0.5$.

Part A: Plot and label Keith's house and Reggie's house on the coordinate plane shown.



Part B: A basketball court is located halfway between Keith's house and Reggie's house. Plot and label the basketball court on the coordinate plane shown.

YOU HAVE COMPLETED THE NON-CALCULATOR SECTION. YOU MAY NOW COLLECT A CALCULATOR FROM YOUR TEACHER.

Name _____ Period _____ Date _____

PART 2 - Grade 6 Unit 2 Model Curriculum Assessment – CALCULATOR

21. There are four students on the chess team.

- The shortest student is 55 inches tall.
- The tallest student is 66 inches tall.
- The mean height of the four students is 61 inches.
- The mean absolute deviation of the heights of the four students is less than 4 inches.

What could be the heights, in inches, of the two other students? Explain how you found your answers or show your work.

22. The table below shows the bowling scores of 11 students from Baruch Middle School last Wednesday.

Bowling Scores

40	64	66	67	67	68	69	70	71	72	78

Part A What is the range of this data set?

Part B What is the interquartile range of this data set?

Part C Which measure, the range or the interquartile range, is a better measure of the spread of this data set? Why?

23. The table below shows the total park acres per 1,000 residents for 6 cities in 2010.

Total Park Acres per 1,000 Residents

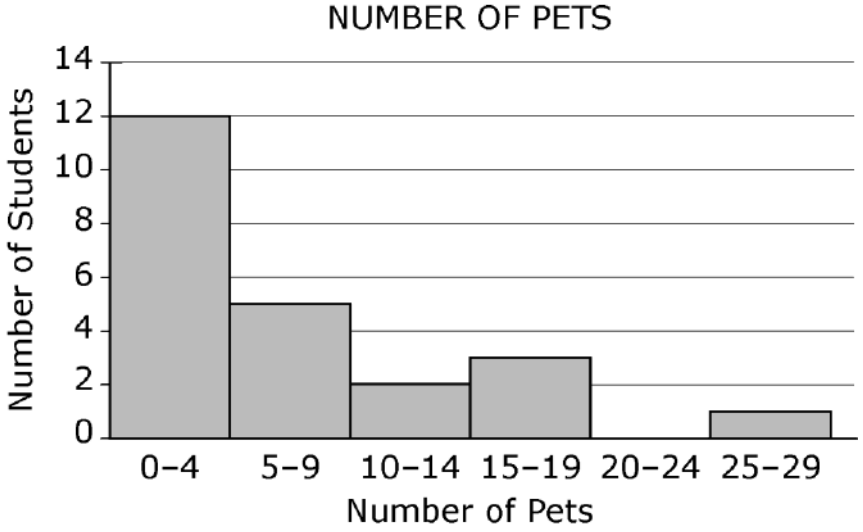
0.8	1.0	2.7	2.8	3.1	13.3

Part A What is the mean of this data set?

Part B What is the median of this data set?

Part C Which measure, the mean or the median, is a better measure of the center of this data set? Why?

24. All the students in Ms. Carter's class reported the number of pets they have at home. Ms. Carter created the histogram shown based on the data she collected.



Part A: How many students are in Ms. Carter's class?

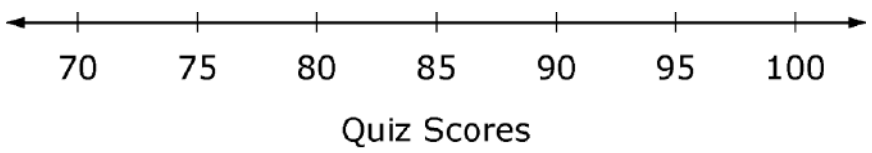
Part B: On the histogram, what is the meaning of the tallest bar, in terms of the situation?

Part C: On the histogram, why is there an interval with no bar on it?

25. Mr. Williams gave the 24 students in his class a quiz. The students' scores on the quiz are shown below.

90	80	90	95	95	90	90	80
90	100	85	70	100	100	75	70
85	85	85	85	85	80	95	100

Create a dot plot of the data shown.



Quiz Scores

26. The 21 students in Ms. Sharpe's class had a contest to see how many words of the Gettysburg Address each student could type in one minute. The number of words typed by the students in the class is shown below.

10	11	13	14	15	15	16
18	19	20	21	22	23	25
26	28	28	33	35	38	41

Part A: Fill in the blanks to identify each of the following values based on the data.

Minimum _____

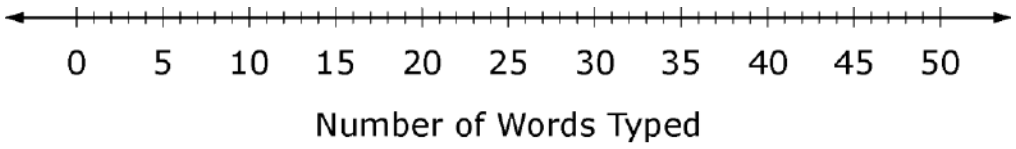
First quartile _____

Second quartile _____

Third quartile _____

Maximum _____

Part B: Create a box plot of the data.



27. There are 20 students in a book club. The number of books each student has read in the last year is shown below.

10 13 12 18 15 13 25 15 28 22

18 27 17 19 22 29 24 11 15 15

Part A: Complete the frequency table using the data shown.

lumber of Books Read	Tallies	Frequency
10–13		
14–17		
18–21		
22–25		
26–29		

Part B: Create a histogram of the data in the frequency table. Be sure to include appropriate labels on the histogram.