

Name \_\_\_\_\_

## 6<sup>th</sup> Grade 3<sup>rd</sup> Trimester Test

Use the stem and leaf plot below for questions 1-3.

1.

A crayon factory monitored the number of broken crayons per box during the past day.

**Broken crayons per box**

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

How many boxes had fewer than 84 broken crayons?

- A) 15
- B) 53
- C) 12
- D) 11

2. What is the range of the data shown on the stem and leaf plot?

- A) 89
- B) 53
- C) 36
- D) 71

3. What is the mode of the data shown on the stem and leaf plot?

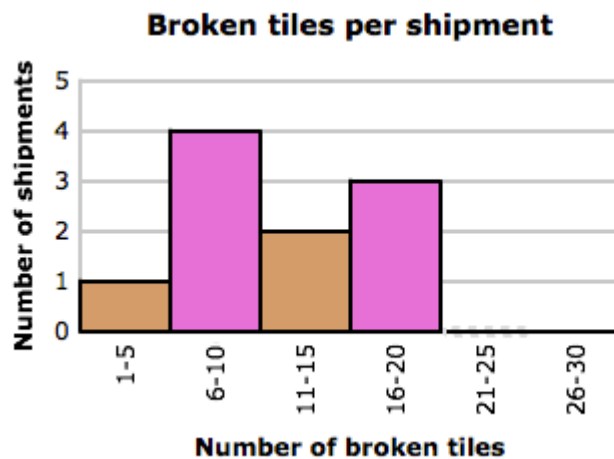
- A) 53 and 89
- B) 71
- C) 55
- D) 85 and 62

4.

Lancaster Flooring tracked the number of broken tiles in each shipment it received last year.

Use the data in the table to complete the histogram below.

Broken tiles per shipment	
Number of broken tiles	Number of shipments
1-5	1
6-10	4
11-15	2
16-20	3
21-25	5
26-30	0



What number needs to be filled in in the graph for the 21-25?

- A) 1
- B) 2
- C) 3
- D) 5

5.

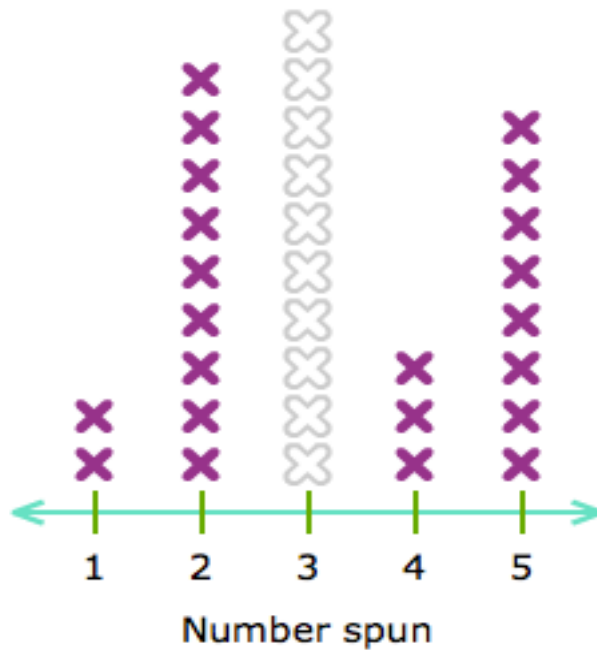
A game show viewer monitors how often a wheel numbered 1 through 5 stops at each number.

Use the data to complete the line plot below.

### Spinning a wheel numbered 1 through 5

1 1 2 2 2 2 2 2 2 2 2 3 3 3 3 3 3 4 4 4 5 5 5 5 5 5  
5 5

### Spinning a wheel numbered 1 through 5



Using the data above, how many x's would you have to put above the number 3?

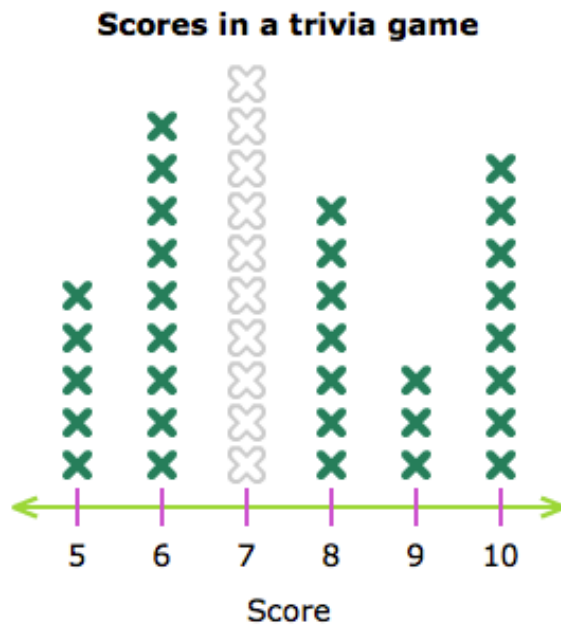
- A) 6
- B) 3
- C) 10
- D) 2

6.

The coach of the Academic Bowl recorded the scores in a trivia game to determine who would represent the school at the regional competition.

Use the data in the table to complete the line plot below.

Scores in a trivia game	
Score	Number of people
5	5
6	9
7	6
8	7
9	3
10	8



Using to the table above, how X's would appear above the number 7?

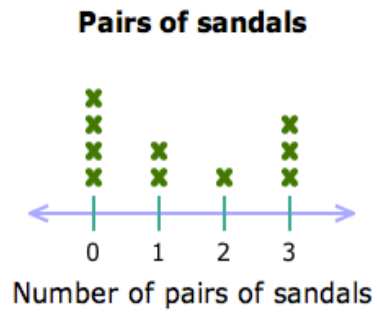
- A) 5
- B) 9
- C) 6
- D) 7

Use the line plot below for questions 7-8.

7.

Alexis records the number of pairs of sandals owned by each of her classmates.

Use the data in the line plot to complete the frequency chart below.



Fill in the missing number.

Pairs of sandals	
Number of pairs of sandals	Number of students
0	4
1	<input type="text"/>
2	1
3	3

- A) 2
- B) 10
- C) 4
- D) 1

8. How many observations are on the line plot?

- A) 2
- B) 10
- C) 4
- D) 1

9.

Principal Tate reported the state test scores from some students at his school.

Use the data to complete the frequency chart below.

### Test scores

61 20 77 82 60 84 81 41 45 78 74 78 85 64 73 40 82 33 73  
80 31 83 57 44 39 32 51 57 72 69 28 67 62

Fill in the missing number.

Test scores	
Score	Number of students
20-29	2
30-39	<input type="text"/>
40-49	4
50-59	3
60-69	6
70-79	7
80-89	7

Which number is missing?

- A) 3
- B) 5
- C) 4
- D) 2

10. Here are the results of Bill's last 10 math tests:

87, 84, 75, 83, 75, 76, 77, 83, 75, 85

What is the median of Bill's test scores?

- A) 80
- B) 75.5
- C) 12
- D) 75

11.

A candy dispenser put various numbers of orange candies into bags.

**Orange candies per bag**

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

What is the median of this data?

- A) 12
- B) 90
- C) 27
- D) 41

12. Christopher has the following data:

14   10   x   19   25

If the median is 14, which number could  $x$  be?

- A) 7
- B) 20
- C) 15
- D) 19

13. This equation shows how Felix's calorie consumption is related to the number of snacks he eats.

$$c = 20s$$

The variable  $s$  represents the number of snacks he eats, and the variable  $c$  represents the total calories he consumes. After eating a total of 1 snack, how many calories will Felix have consumed in all?

- A) 32
- B) 1
- C) 21
- D) 20

14. This equation shows how the total number of souvenirs Caleb buys is related to the number of days he spends on vacation.

$$s = 7d$$

The variable  $d$  represents the number of days he spends on vacation, and the variable  $s$  represents the total number of souvenirs he buys. After 2 days of vacation, how many total souvenirs will Caleb have bought?

- A) 9
- B) 4
- C) 14
- D) 1



15. This equation shows how the total number of books Eve has read depends on the number of months she has been part of a book club.

$$b = 2m$$

The variable  $m$  represents the number of months she has been a member of the book club, and the variable  $b$  represents the number of books that she has read. After belonging to the book club for 5 months, how many books will Eve have read in all?

- A) 0
- B) 22
- C) 10
- D) 12

16. **Add.**

$$\begin{array}{r} 0.95 \\ + 0.02 \\ \hline \end{array}$$

- A) 0.77
- B) 0.76
- C) 0.97
- D) 0.96

17. **Multiply:**

$$\begin{array}{r} 0.4 \\ \times 0.5 \\ \hline \end{array}$$

- A) 0.20
- B) 2
- C) 20
- D) 9

18. Divide. Give the exact answer, written as a decimal.

$$\begin{array}{r} \boxed{\phantom{000}} \\ 5 \overline{) 36.8} \end{array}$$

- A) 73.6
- B) .736
- C) 736
- D) 7.36

19. Evaluate.

$$2^4 =$$

- A) 14
- B) 128
- C) 16
- D) 8

20. What is 4 to the power of 3?

- A)  $3^4$
- B)  $4^3$
- C) 16
- D)  $4^2$

21. Evaluate:

$$10^5$$

- A) 1,000,000
- B) 10,000
- C) 50
- D) 100,000

22. At 1:00 PM the temperature was  $-10^{\circ}\text{F}$ . At 7:00 PM the temperature was  $2^{\circ}\text{F}$ . How much did the temperature rise?

- A)  $4^{\circ}$
- B)  $12^{\circ}$
- C)  $24^{\circ}$
- D)  $8^{\circ}$

23. At 1:00 PM the temperature was 60 degrees Fahrenheit, at 4:00 PM the temperature was 52 degrees Fahrenheit, and at 11:00 PM the temperature was 58 degrees Fahrenheit. When was it warmest?

- A) 1:00 PM
- B) 4:00 PM
- C) 11:00 PM
- D) 4:00 AM

24. An airplane is flying at a height of 1,000 feet above sea level and a submarine is 200 feet below sea level. What is the total distance between the airplane and the submarine?

- A) 800 feet
- B) 1,200 feet
- C) -800 feet
- D) -1200 feet

25. Find the value of the expression  $y - 9$  if  $y = 16$ .

- A) 25
- B) -25
- C) -7
- D) 7

26. Isabella had  $c$  CDs until she won 17 more in a contest. Choose the expression that shows how many CDs Isabella has now.

- A) 17
- B)  $17 - c$
- C)  $c + 17$
- D)  $c$

27. Find the value of the expression  $v - 5.4$  if  $v = 10$ .

- A) 4.6
- B) 6.4
- C) -4.6
- D) 15.4

28.

Find the value of  $z$ . Write your answer as a decimal number.



- A) 0.5
- B) 0.7
- C) 0.6
- D) 7

29.



What number is missing from the number line above?

- A) 1
- B) 0.1
- C) -1
- D) -0.1

30.

Find the value of  $z$ . Write your answer as a decimal number.



- A) 0.2
- B) 2.2
- C) 2.3
- D) 2

31. What is the greatest common factor of 12 and 15?

- A) 12
- B) 15
- C) 2
- D) 3

32. What is the greatest common factor of 15 and 3?

- A) 3
- B) 1
- C) 5
- D) 15

33. What is the greatest common factor of 8 and 15?

- A) 120
- B) 1
- C) 4
- D) 8

34. What is the absolute value of -6?

- A) 6
- B) -6
- C) 0
- D) 66

35. What is  $|-4.66|$ ?

- A) -4.66
- B) 4.6
- C) 4.66
- D) 0

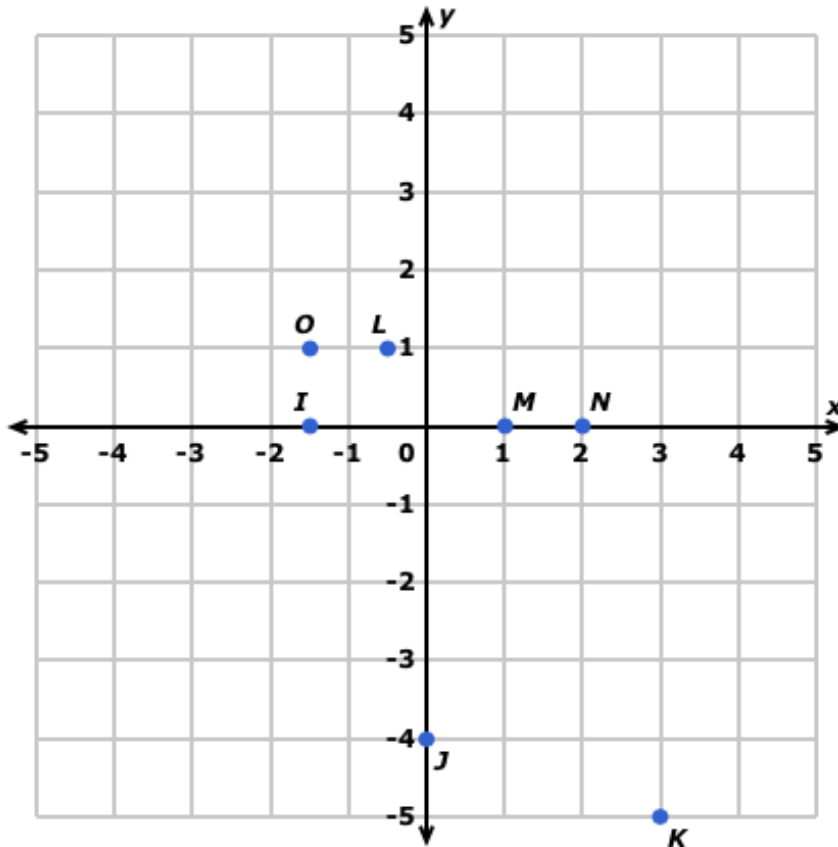
36. Put these numbers in order from **greatest** to least, using the formats given.

0.8      0.2      0.7

- A) 0.2, 0.8, 0.7
- B) 0.8, 0.7, 0.2
- C) 0.7, 0.8, 0.2
- D) 0.2, 0.7, 0.8

For questions 37 - 38 use the following coordinate grid.

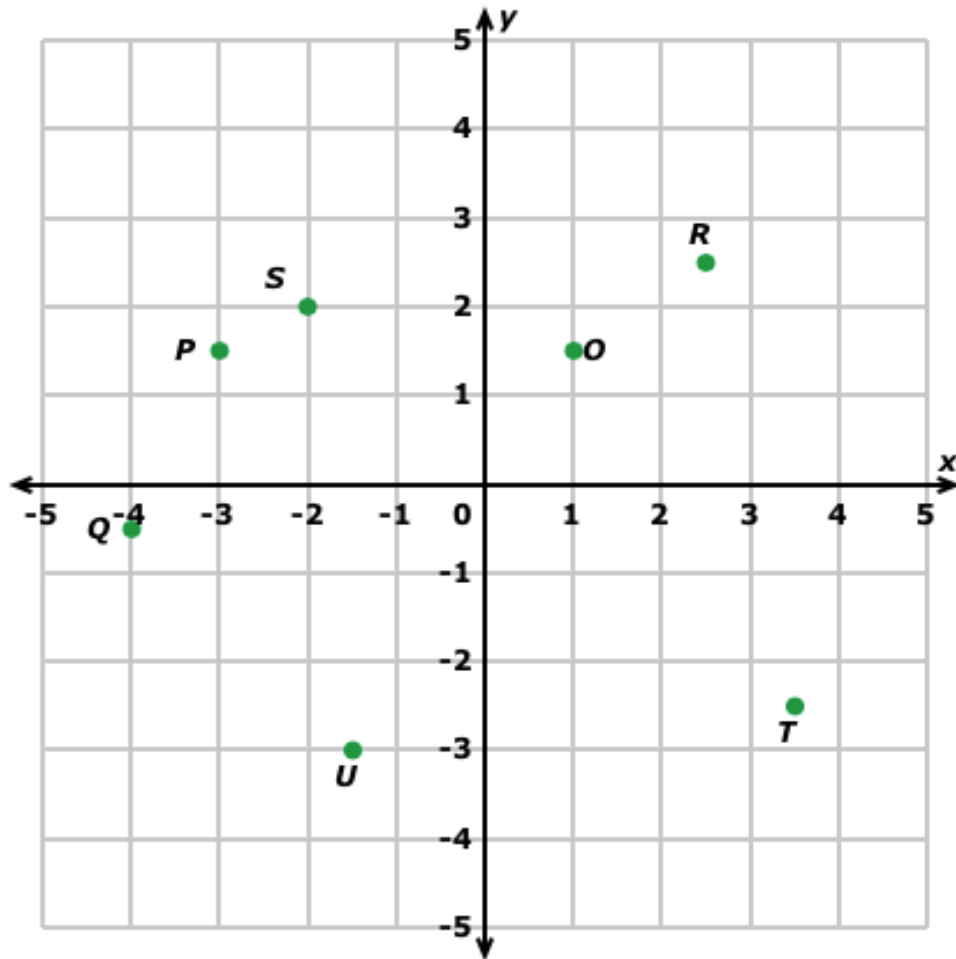
37. What is the ordered pair for point K?



- A) (3, 5)
- B) (3, -5)
- C) (-5, 3)
- D) (-5, -3)

38. What is the ordered pair for point I?

- A) (-0, -1.5)
- B) (0, 1.5)
- C) (0, -1.5)
- D) (-1.5, 0)



39. What is the ordered pair for point T?

- A) (-2.5, 3.5)
- B) (3.5, -2.5)
- C) (3, -3)
- D) (-3,3)

40. Simplify the expression:  $2(5 + 8z)$

- A)  $13z$
- B)  $18z$
- C)  $25 + 28z$
- D)  $10 + 16z$



41. Simplify the expression:  $7(6f + 7)$

- A)  $42f + 49$
- B)  $6f + 7$
- C)  $76f + 77$
- D)  $49f + 56$

42. Simplify the expression:  $6(3m - 5)$

- A)  $63m - 65$
- B)  $18m - 30$
- C)  $18m - 5$
- D)  $3m - 5$

43 Divide. Simplify your answer and write it as a proper fraction or as a whole or mixed number.

$$\frac{1}{9} \div \frac{1}{4} = \boxed{\phantom{00}}$$

- A)  $\frac{1}{36}$       B)  $\frac{9}{4}$       C)  $\frac{4}{9}$       D)  $\frac{1}{13}$

44.

Divide. Simplify your answer and write it as a proper fraction or as a whole or mixed number.

$$\frac{1}{3} \div \frac{1}{2} = \boxed{\phantom{00}}$$

- A)  $\frac{2}{3}$       B)  $\frac{1}{6}$       C)  $\frac{3}{2}$       D)  $\frac{1}{5}$

45.

What is the reciprocal of  $\frac{1}{4}$ ?

- A)  $\frac{4}{1}$       B)  $\frac{1}{4}$       C) 0      D)  $\frac{10}{40}$