Mathematics
Grade 3

Wall Mathematics, 3 Unit_19

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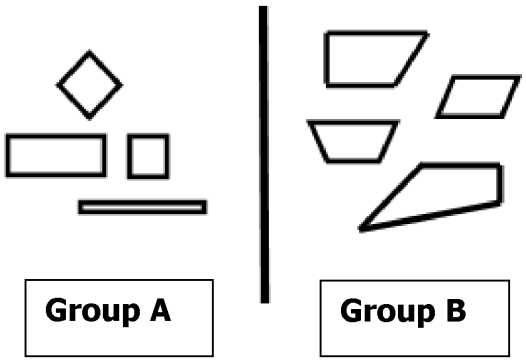
WAKE COUNTY SCHOOLS **2013 - 2014**

1. Which figure belongs in group A?



A. 

B. 

C. 

D. 

2. Which is true for all quadrilaterals?

A. They all have four equal-sized angles.

B. They all have four sides.

C. Their angles are all right angles.

D. Their sides are all of equal length.

3. What shapes must have four right angles?

A. square and rectangle

B. rhombus and parallelogram

C. trapezoid and square

D. rhombus and trapezoid

4. Use the image below to answer the question.

Which statement is *true* about the shapes?

A. All are quadrilaterals.

B. All are parallelograms.

C. All have four right angles.

D. All have four equal sides.

5. Which polygon has four equal sides and four equal angles?

A. rectangle

B. square

C. trapezoid

D. triangle

6. Which figure is a parallelogram?

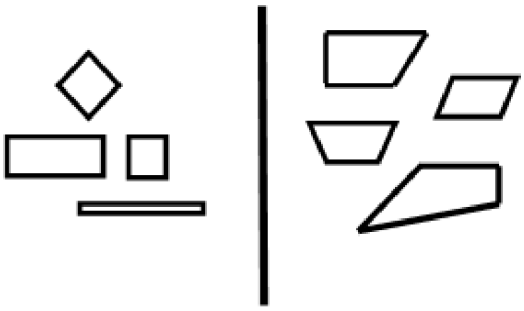
A. 

B. 

C. 

D. 

7. Which figure belongs in group B?



A. 

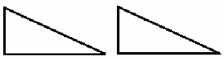
B. 

C. 

D. 

8. Which pair of shapes could be combined to form a rectangle?

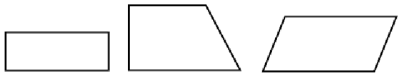
A. 

B. 

C. 

D. 

9. Which statement is true about all the shapes below?



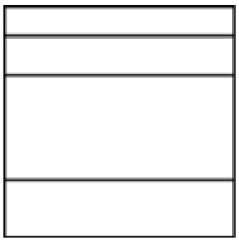
A. They have acute angles.

B. They have four angles.

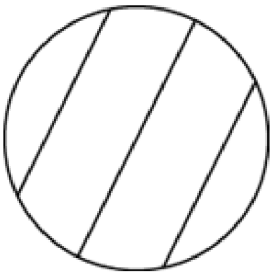
C. They have obtuse angles.

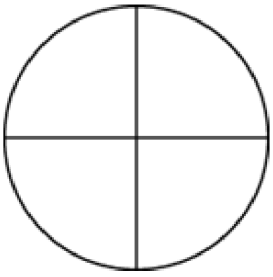
D. They have right angles.

10. Which of these figures is partitioned into four equal parts?

A. 

B. 

C. 

D. 

11. Stein bought a cake and cut it into 8 equal parts. He gave 4 parts to John, 3 to Mike, and 1 to Mary. What fraction represents the area of the entire cake that Mary has?

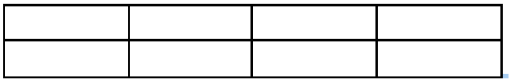
A. $\frac{1}{8}$

B. $\frac{2}{8}$

C. $\frac{3}{8}$

D. $\frac{4}{8}$

12. Mr. Brinn divided this figure into equal parts.



Into what fractional parts was the figure divided?

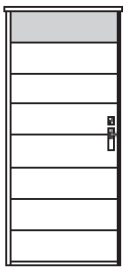
A. eighths

B. fourths

C. thirds

D. halves

13. Mark painted part of his white door gray.



What fraction of the door did Mark paint gray?

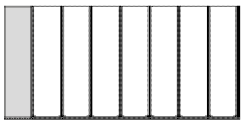
A. –

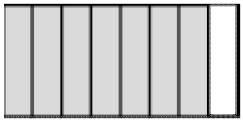
B. –

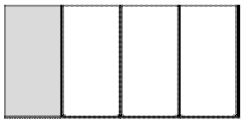
C. –

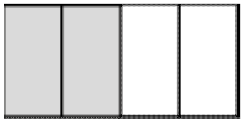
D. –

14. Marsh cut a rectangular piece of marble. He cut $\frac{1}{8}$ of the area of the marble. What figure showsthis?

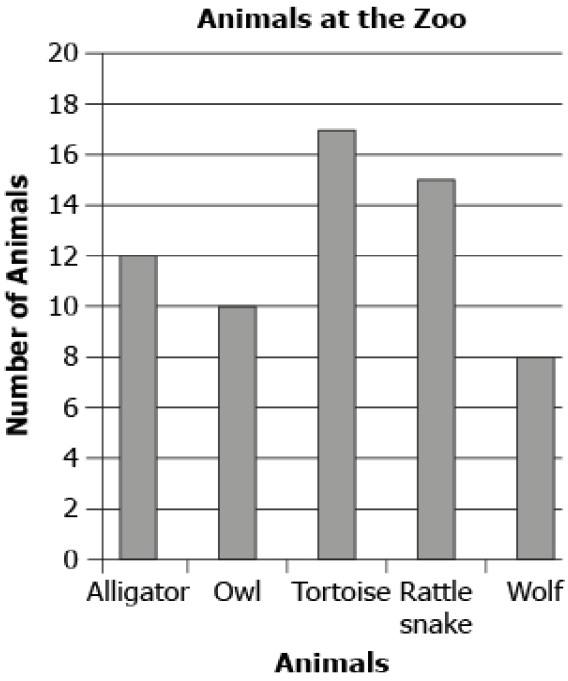
A. 

B. 

C. 

D. 

15. A teacher takes her students on a class field trip to a nearby zoo. She helps her students in recognizing and counting the different animals they know. The bar graph below shows their count.



How many more tortoises are at the zoo than wolves?

A. 8

B. 9

C. 17

D. 25

16. Mark took a handful of shirt buttons and sorted them on the basis of their color. The pictograph below shows the number of buttons of each color.

Number of Buttons	
Green	●●●
White	●
Blue	●●●●●●●●
Gray	●●
Black	●●●●●●●
● = 5 buttons	

How many more blue buttons did he have than the green and gray buttons combined?

A. 3

B. 15

C. 25

D. 30

17. The pictograph below shows the number of toy cars four friends have.

Number of Toy Cars	
Steven	🚗
Matthew	🚗🚗
Frank	🚗🚗🚗🚗
Scott	🚗🚗🚗
🚗 = 3 Toy Cars	

How many more cars does Scott have than Steven?

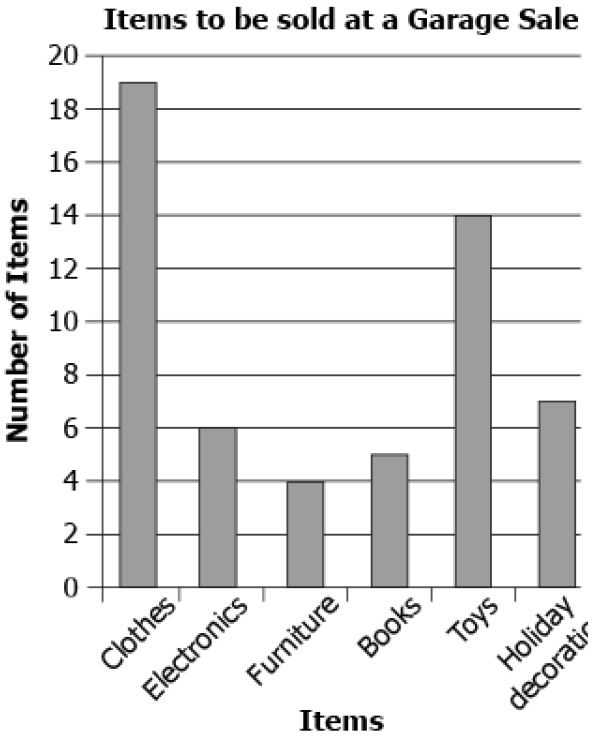
A. 2

B. 3

C. 6

D. 9

18. Mike made a list of old clothing, electronics, furniture, books, toys, and holiday decorations that he could sell at a garage sale. The bar graph below shows the numbers of each type of item on his list.



How many more books does he have to sell than furniture items?

A. 5

B. 4

C. 2

D. 1

19. Ellen's class at school tracked the number of books read from their classroom library and made a pictograph to represent the data gathered.

LIBRARY BOOKS

KEY
 = 2 Books

Week	Number of Books Read
1	
2	
3	
4	

If the classroom read 10 more books in week 4 than week 3, how many books does each  in the pictographrepresent?

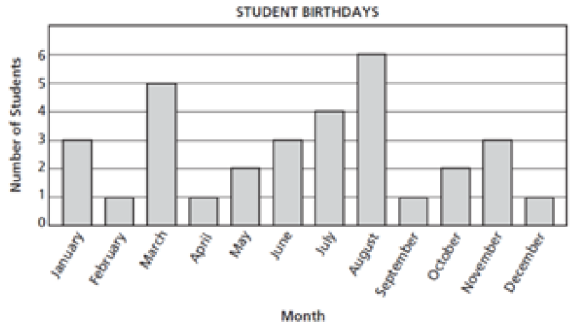
A. 10 books

B. 7 books

C. 5 books

D. 2 books

20. Shelby surveyed her classmates to find in which months they were born. She graphed the data in the bar graph.



Which statement is true about the graph Shelby created?

A. Most students were born in March.

B. Four of the months only had one student born in them.

C. August had 3 more students born in it than July.

D. January had 3 more students born in it than Feburary.

21. Grades 2-5 at Riverbend Elementary School have been tracking hours of community service at each grade level by using a pictograph.

Grade	Number of Community Service Hours
2nd	∇∇∇∇∇
3rd	∇∇∇∇∇∇∇∇∇∇∇
4th	∇∇∇∇
5th	∇∇∇∇∇∇∇∇

∇ = ?

If 3rd grade completed 80 more hours than 4th grade, how much does each ∇ represent in the pictograph?

A. 2

B. 5

C. 10

D. 20

22. The pictograph shows the number of butterflies in 4 different collections at the Science Museum.

BUTTERFLY COLLECTIONS

Collection	Number of Butterflies
A	🦋 🦋
B	🦋 🦋 🦋 🦋
C	🦋 🦋 ½🦋
D	🦋 🦋 🦋 ½🦋

KEY: 🦋 = ? Butterflies

If there are 40 butterflies in collection B, how many butterflies does each butterfly in the pictograph represent?

A. 5

B. 10

C. 20

D. 40

23. Study the pictograph.

Basketball Goals Scored in Championship Game	
Player	**Goals Scored**
Fran	⊗⊗⊗⊗
Gail	⊗⊗⊗⊗⊗
Lynda	⊗⊗⊗
Patty	⊗⊗⊗⊗⊗⊗

⊗ = 5 points

How many more points did Patty score than Lynda in the basketball game?

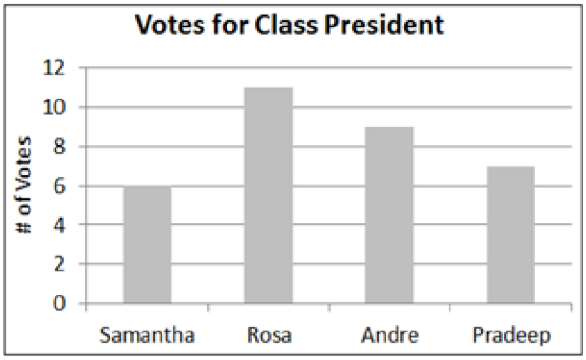
A. 3 points

B. 5 points

C. 15 points

D. 20 points

24. The graph shows the number of votes for class president in Mr. Freeman's class.



How many more votes did Rosa receive for class president than Samantha?

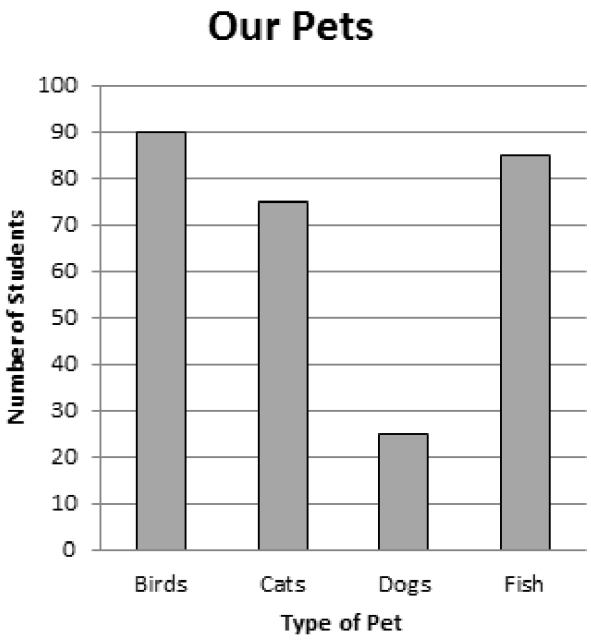
A. 2 votes

B. 5 votes

C. 11 votes

D. 18 votes

25. How many students have cats or fish?



A. 90

B. 100

C. 130

D. 160

26. The principal at James K. Polk Elementary School surveyed students to find out how many students participate in activities after school.

AFTER SCHOOL ACTIVITIES AT JAMES K. POLK ELEMENTARY SCHOOL	
SPORTS	☺ ☺
MATH & READING CLUBS	☺ ☺ ☺
DANCE	☺ ☺
GIRLS & BOYS CLUBS	☺ ☺ ☺ ☺
KEY	☺ = **10 STUDENTS**

How many students go to Math & Reading Clubs or Girls & Boys Clubs?

A. 60

B. 70

C. 80

D. 90

27. Study the pictograph.

Basketball Goals Scored in Championship Game	
Player	**Goals Scored**
Abby	⊗ ⊗ ⊗ ⊗ ⊗
Isabel	⊗ ⊗ ⊗ ⊗ ⊗ ⊗ ⊗
Keisha	⊗ ⊗ ⊗ ⊗
Susie	⊗ ⊗ ⊗ ⊗ ⊗ ⊗ ⊗ ⊗ ⊗ ⊗

⊗ = 2 points

How many more points did Susie score than Abby in the basketball game?

A. 5 points

B. 8 points

C. 10 points

D. 15 points

28. Study the diagram.

Students Riding Bicycles to Eastside Elementary School	
Grade	**Students Riding Bicycles to School**
2nd Grade	⊗ ⊗ ⊗ ⊗
3rd Grade	⊗ ⊗ ⊗ ⊗ ⊗ ⊗ ⊗ ⊗
4th Grade	⊗ ⊗ ⊗ ⊗ ⊗ ⊗
5th Grade	⊗ ⊗ ⊗ ⊗ ⊗ ⊗ ⊗ ⊗ ⊗ ⊗ ⊗

⊗ = 3 bicycle riders

How many more 3rd graders ride their bicycles to school than 4th graders?

A. 2

B. 6

C. 12

D. 24

29. Maria Lopez won the election for mayor of the town of Gold City.

Final Vote Results for Mayor of Gold City	
Candidate	**Votes**
Frank Bailey	22,603
Maria Lopez	34,551

According to the table, how many more votes did Maria Lopez receive than Frank Bailey?

A. 10,948

B. 11,048

C. 11,948

D. 12,048

30. Anna asked her classmates what kind of ice cream they liked *best*. Two girls and three boys chose chocolate, two girls and two boys chose vanilla, four girls and five boys chose peanut butter, and three girls and one boy chose mint chip.

Which table shows this information *correctly* ?

A.

	girls	boys
chocolate	3	2
vanilla	2	2
peanut butter	5	4
mint chip	1	3

B.

	girls	boys
chocolate	2	3
vanilla	2	2
peanut butter	4	5
mint chip	3	1

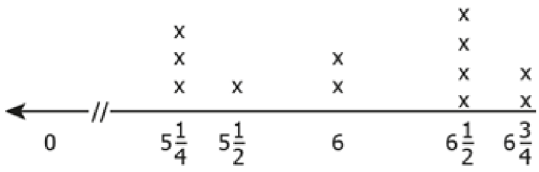
C.

	girls	boys
chocolate	2	4
vanilla	3	5
peanut butter	2	3
mint chip	2	1

D.

	girls	boys
chocolate	2	3
vanilla	3	5
peanut butter	5	1
mint chip	2	2

31. Kate has several strands of thread of different lengths.



Measurement in inches

How many strands of the thread are $6\frac{1}{2}$ inches in length?

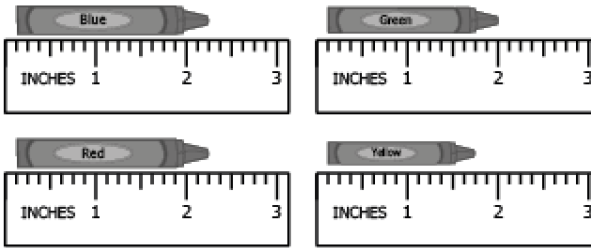
A. 1

B. 2

C. 3

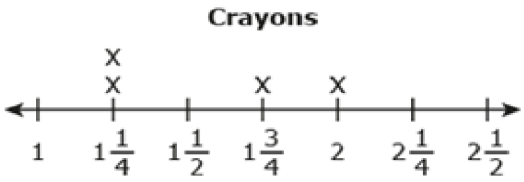
D. 4

32. Pax has been using his crayons since the start of the school year. The crayons were initially 2.5 inches long. He measures their current length using an inch ruler.

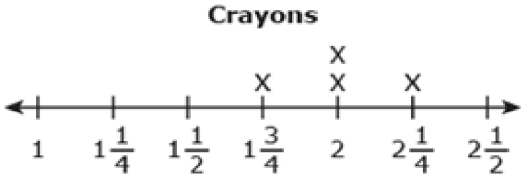


What line plot *best* represents the lengths of the crayons?

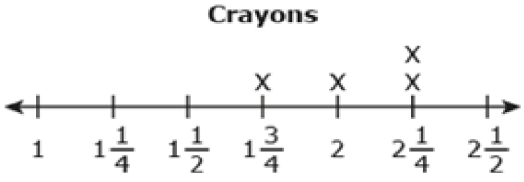
A.



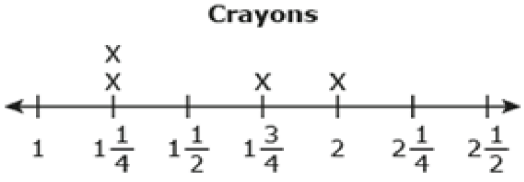
B.



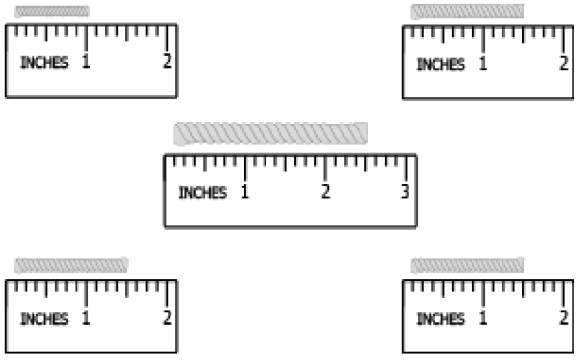
C.



D.

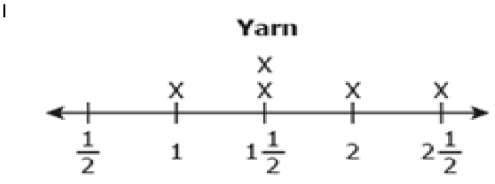


33. A group of third graders were working on a craft project. They are measuring yarn of different lengths.

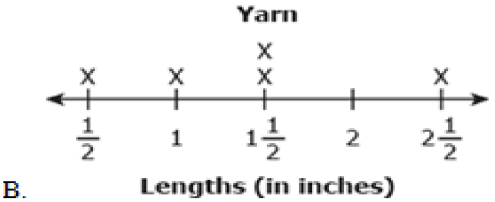


What line plots *best* represents the lengths of the yarn?

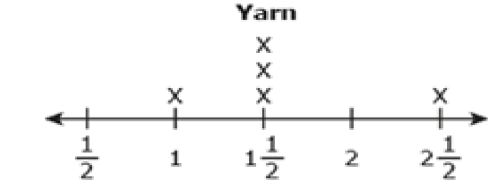
A.



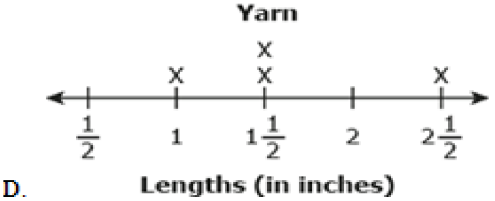
B.



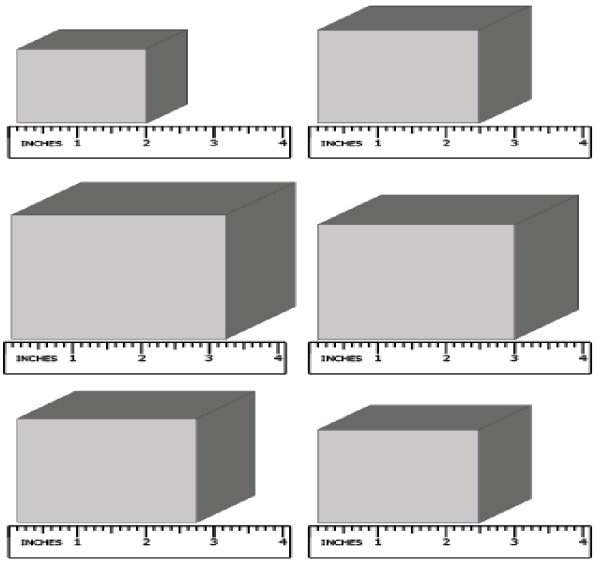
C.



D.

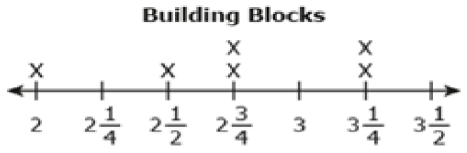


34. The measurements of six blocks in a kindergarten class are shown below.

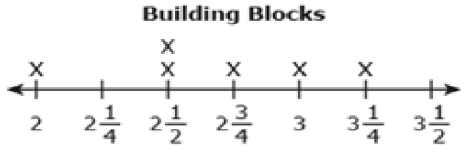


What line plot *best* represents the lengths of the building blocks?

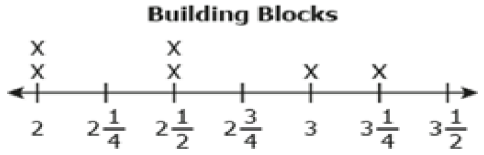
A.



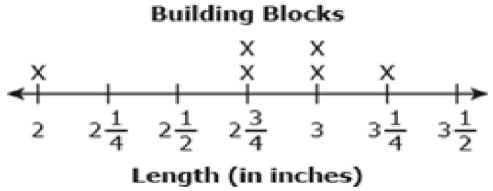
B.



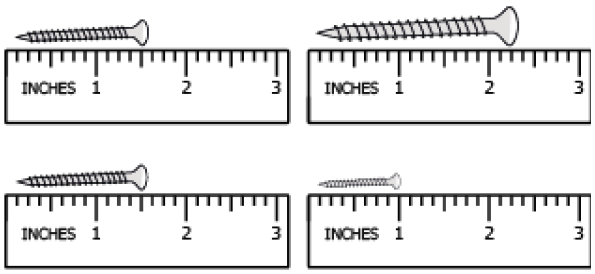
C.



D.



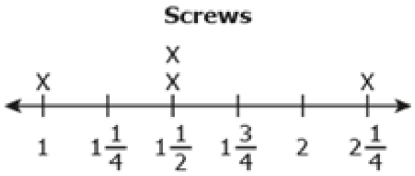
35. A student measures the lengths of different screws.



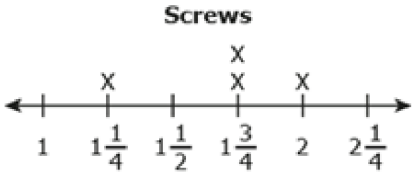
What line plot *best* represents the lengths of the screws?

I

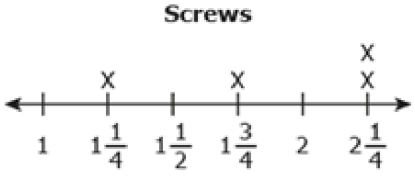
A.



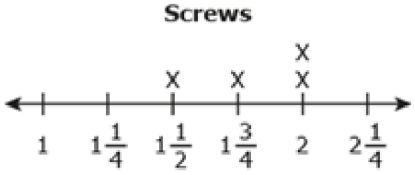
B.



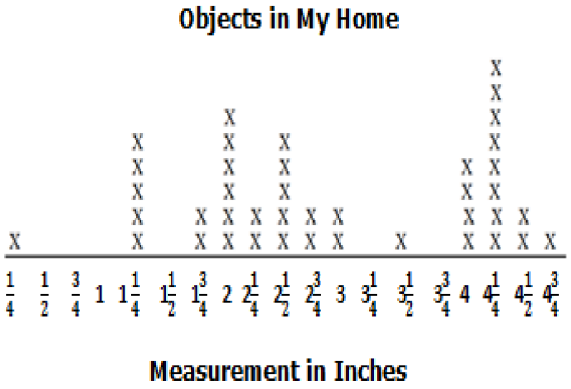
C.



D.



36. Frank measured the length of objects in his home and displayed the measurements on the line plot.



Which size objects were the most common?

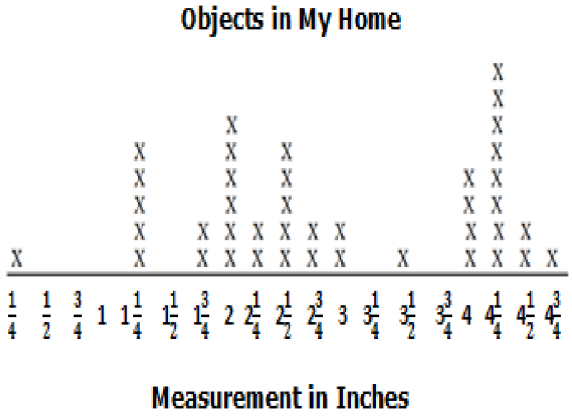
A. $1\frac{1}{4}$

B. $2\frac{1}{4}$

C. $3\frac{1}{4}$

D. $4\frac{1}{4}$

37. Frank measured the length of objects in his home and displayed the measurements on the line plot.



How many objects were more than 2 inches in length?

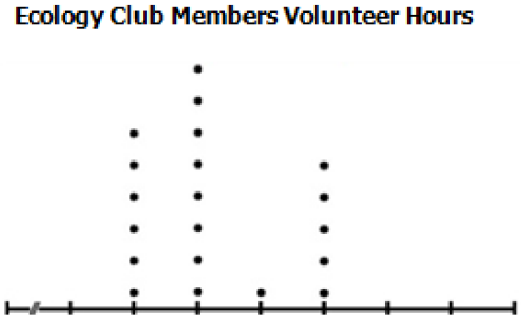
A. 6 objects

B. 8 objects

C. 27 objects

D. 33 objects

38. The members of the Ecology Club at school volunteer their time at a city park to pick up trash. The students recorded the number of hours they volunteered last month on the chart.



Which number of hours did *most* members of the Ecology Club volunteer last month?

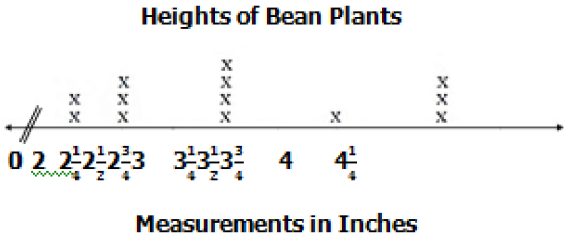
A. $5\frac{1}{2}$ hours

B. 6 hours

C. $6\frac{1}{2}$ hours

D. 7 hours

39. Students in Mr. Jones' science class measured the height of their bean plants and recorded them on a giant line plot in the classroom.



Which height was *most* common on the line plot?

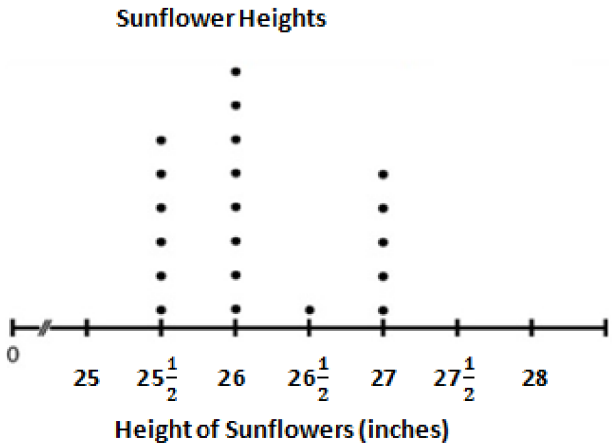
A. $2\frac{1}{4}$ inches

B. $2\frac{1}{2}$ inches

C. 3 inches

D. 4 inches

40. Each student in the Garden Club at Eastside Elementary planted sunflowers in the city park near the school. After six weeks, the height of each sunflower they planted was recorded in the line plot.



To which height did *most* sunflowers grow since the students planted them six weeks ago?

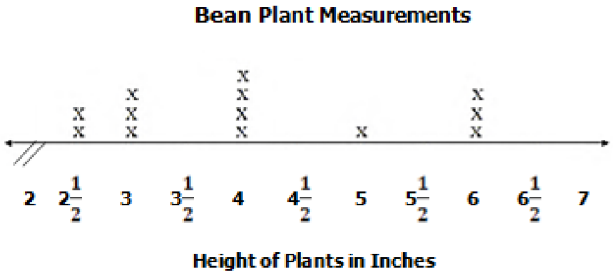
A. $25\frac{1}{2}$ inches

B. 26 inches

C. $26\frac{1}{2}$ inches

D. 27 inches

41. Thirteen Students in Mr. Cline's science class measured the height of their bean plant and recorded it on a giant line plot in the classroom.



Which growth did the *fewest* students record?

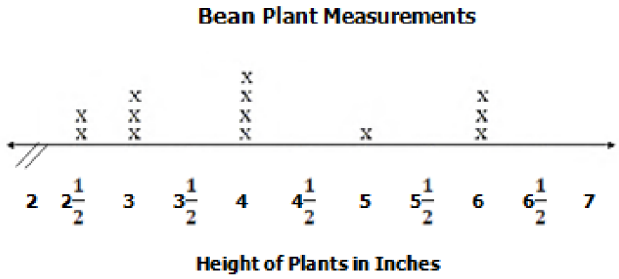
A. $2\frac{1}{2}$ inches

B. 3 inches

C. 4 inches

D. 5 inches

42. Thirteen Students in Mr. Cline's science class measured the height of their bean plant and recorded it on a giant line plot in the classroom.



How many students recorded a growth less than 3 inches?

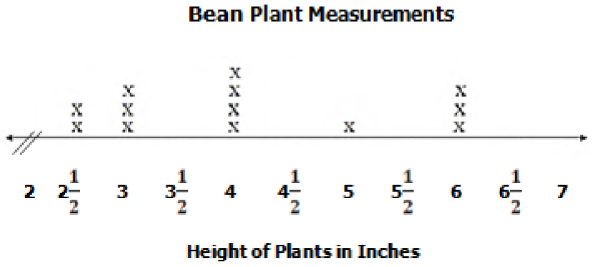
A. 2 students

B. 3 students

C. 5 students

D. 9 students

43. Thirteen Students in Mr. Cline's science class measured the height of their bean plant and recorded it on a giant line plot in the classroom.



How many students recorded a growth greater than 3 inches?

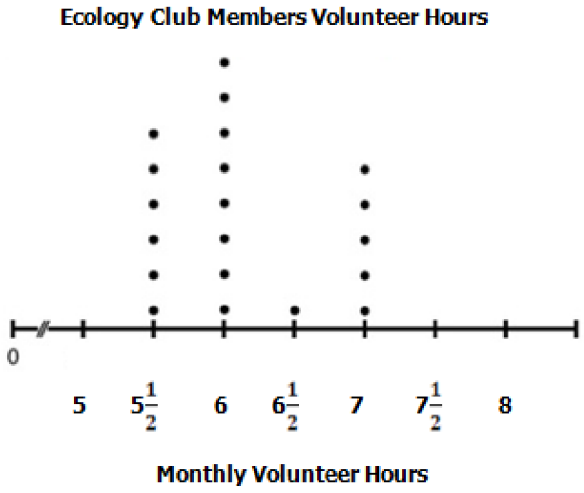
A. 3 students

B. 4 students

C. 8 students

D. 13 students

44. The members of the Ecology Club at school volunteer time at a city park to pick up trash. Each student recorded the number of hours they volunteered last month on the chart.



Which amount of hours did the fewest members of the Ecology Club volunteer last month?

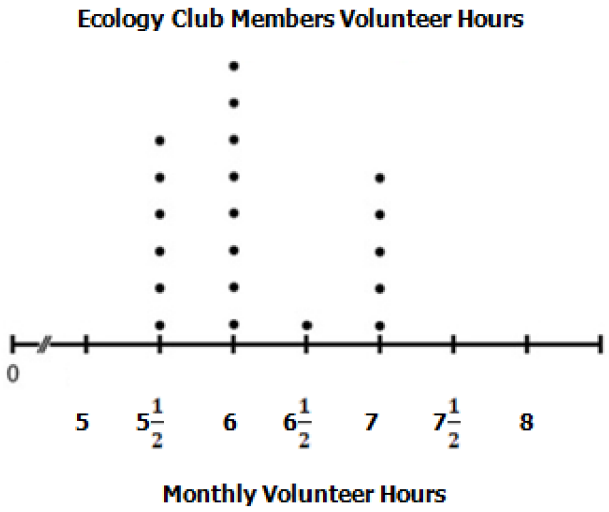
A. $5\frac{1}{2}$ hours

B. 6 hours

C. $6\frac{1}{2}$ hours

D. 7 hours

45. The members of the Ecology Club at school volunteer time at a city park to pick up trash. Each student recorded the number of hours they volunteered last month on the chart.



Which number of hours did 5 members of the Ecology Club volunteer?

A. $5\frac{1}{2}$ hours

B. 6 hours

C. $6\frac{1}{2}$ hours

D. 7 hours

#	Answer	Objective
1.	D	Obj : 3.G.1. Understand that shapes in different cat...
2.	B	Obj : 3.G.1. Understand that shapes in different cat...
3.	A	Obj : 3.G.1. Understand that shapes in different cat...
4.	A	Obj : 3.G.1. Understand that shapes in different cat...
5.	B	Obj : 3.G.1. Understand that shapes in different cat...
6.	A	Obj : 3.G.1. Understand that shapes in different cat...
7.	C	Obj : 3.G.1. Understand that shapes in different cat...
8.	B	Obj : 3.G.1. Understand that shapes in different cat...
9.	B	Obj : 3.G.1. Understand that shapes in different cat...
10.	D	Obj : 3.G.2. Partition shapes into parts with equal ...
11.	A	Obj : 3.G.2. Partition shapes into parts with equal ...
12.	A	Obj : 3.G.2. Partition shapes into parts with equal ...
13.	D	Obj : 3.G.2. Partition shapes into parts with equal ...
14.	A	Obj : 3.G.2. Partition shapes into parts with equal ...
15.	B	Obj : 3.MD.3. Draw a scaled picture graph and a scale...
16.	B	Obj : 3.MD.3. Draw a scaled picture graph and a scale...
17.	C	Obj : 3.MD.3. Draw a scaled picture graph and a scale...
18.	D	Obj : 3.MD.3. Draw a scaled picture graph and a scale...
19.	C	Obj : 3.MD.3. Draw a scaled picture graph and a scale...
20.	B	Obj : 3.MD.3. Draw a scaled picture graph and a scale...
21.	C	Obj : 3.MD.3. Draw a scaled picture graph and a scale...
22.	B	Obj : 3.MD.3. Draw a scaled picture graph and a scale...
23.	C	Obj : 3.MD.3. Draw a scaled picture graph and a scale...
24.	B	Obj : 3.MD.3. Draw a scaled picture graph and a scale...
25.	D	Obj : 3.MD.3. Draw a scaled picture graph and a scale...
26.	B	Obj : 3.MD.3. Draw a scaled picture graph and a scale...
27.	C	Obj : 3.MD.3. Draw a scaled picture graph and a scale...
28.	B	Obj : 3.MD.3. Draw a scaled picture graph and a scale...
29.	C	Obj : 3.MD.3. Draw a scaled picture graph and a scale...
30.	B	Obj : 3.MD.3. Draw a scaled picture graph and a scale...
31.	D	Obj : 3.MD.4. Generate measurement data by measuring ...
32.	C	Obj : 3.MD.4. Generate measurement data by measuring ...
33.	C	Obj : 3.MD.4. Generate measurement data by measuring ...
34.	B	Obj : 3.MD.4. Generate measurement data by measuring ...
35.	A	Obj : 3.MD.4. Generate measurement data by measuring ...
36.	D	Obj : 3.MD.4. Generate measurement data by measuring ...
37.	C	Obj : 3.MD.4. Generate measurement data by measuring ...
38.	B	Obj : 3.MD.4. Generate measurement data by measuring ...
39.	C	Obj : 3.MD.4. Generate measurement data by measuring ...
40.	B	Obj : 3.MD.4. Generate measurement data by measuring ...
41.	D	Obj : 3.MD.4. Generate measurement data by measuring ...
42.	A	Obj : 3.MD.4. Generate measurement data by measuring ...
43.	C	Obj : 3.MD.4. Generate measurement data by measuring ...
44.	C	Obj : 3.MD.4. Generate measurement data by measuring ...
45.	D	Obj : 3.MD.4. Generate measurement data by measuring ...

Objectives Measured:	Items	Questions measuring this objective
Obj : 3.G.1. Understand that shapes in different cat...	9	1, 2, 3, 4, 5, 6, 7, 8, 9
Obj : 3.MD.3. Draw a scaled picture graph and a scale...	16	15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30
Obj : 3.MD.4. Generate measurement data by measuring ...	15	31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45
Obj : 3.G.2. Partition shapes into parts with equal ...	5	10, 11, 12, 13, 14

#	Key	Item ID
1.	D	MC 144299
2.	B	MC 144775
3.	A	MC 146790
4.	A	MC 146787
5.	B	MC 144707
6.	A	MC 144294
7.	C	MC 144120
8.	B	MC 47020
9.	B	MC 37332
10.	D	MC 146803
11.	A	MC 142437
12.	A	MC 144690
13.	D	MC 144123
14.	A	MC 142442
15.	B	MC 146840
16.	B	MC 146848
17.	C	MC 146846
18.	D	MC 146843
19.	C	MC 142743
20.	B	MC 144865
21.	C	MC 144127
22.	B	MC 144723

#	Key	Item ID
23.	C	MC 144727
24.	B	MC 144728
25.	D	MC 37235
26.	B	MC 37252
27.	C	MC 50460
28.	B	MC 50296
29.	C	MC 50069
30.	B	MC 37024
31.	D	MC 152707
32.	C	MC 146859
33.	C	MC 146856
34.	B	MC 146853
35.	A	MC 146851
36.	D	MC 144125
37.	C	MC 144124
38.	B	MC 144851
39.	C	MC 144850
40.	B	MC 142751
41.	D	MC 135305
42.	A	MC 135304
43.	C	MC 135303
44.	C	MC 135301
45.	D	MC 135302