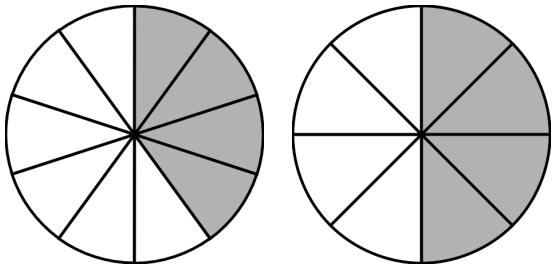
1. Nolanda has 10 muffins on a tray and 4 are blueberry muffins. LaRachel has 8 muffins on a tray and 4 are blueberry muffins. Use the models to decide which girl has a greater fraction of blueberry muffins.



Nolanda LaRachel

Which statement is true about the fraction models above?

- ⬭ $\frac{4}{8} = \frac{4}{10}$
- ⬭ $\frac{4}{8} > \frac{4}{10}$
- ⬭ $\frac{4}{8} < \frac{4}{10}$
- ⬭ $\frac{4}{8} > \frac{6}{10}$

2. The perimeter of a rectangle is 40 yards. Find the width if the length of the rectangle is 8 yards.

- ⬭ 5 yards
- ⬭ 10 yards
- ⬭ 12 yards
- ⬭ 320 yd^2

3. Mrs. Molina is a photographer. She gave this estimate of the number of students she will photograph on picture day:

440

There were actually 437 students to be photographed. To make sure that she brought enough supplies, Mrs. Molina rounded the number to the nearest ten. Which of the following is also rounding to the nearest ten?

- ⬭ Jake asks to borrow $1.90, and a friend gives him $2.
- ⬭ Silvia wants to buy 123 stamps and rounds the number to 130.
- ⬭ Travis has 46 baseball trading cards and says he has about 50.
- ⬭ Bill drives 88 miles and says he drove close to 100 miles.

4. Circle the numbers in which the digit 8 represents the value of 800.

2,800	5,392	46,000
1,286	4,829	15,943
5,628	7,381	27,850

5. Alonzo practiced throwing 20-yard football passes. He threw the same number of practice passes each day.

Football Practice

Number of Days of Practice	Total Number of Throws
2	26
3	39
5	65
7	

Based on this pattern, which expression shows the total number of passes Alonzo threw during 7 days of practice?

- ⬭ 12×13
- ⬭ $65 + 39$
- ⬭ $7 + 13$
- ⬭ 7×13

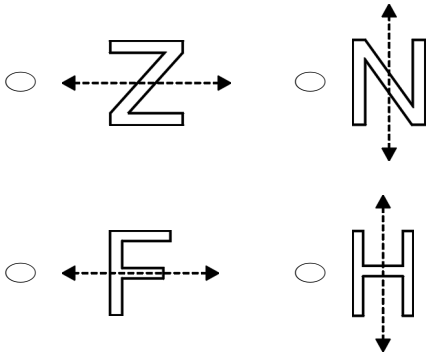
6. In which of these situations would it be acceptable to round the numbers?

- ⬭ the number of passengers who can safely board a ferry
- ⬭ the amount of pressure needed to safely inflate a rubber raft
- ⬭ the cost of a meal at a restaurant
- ⬭ the number of times children slide down playground equipment during recess

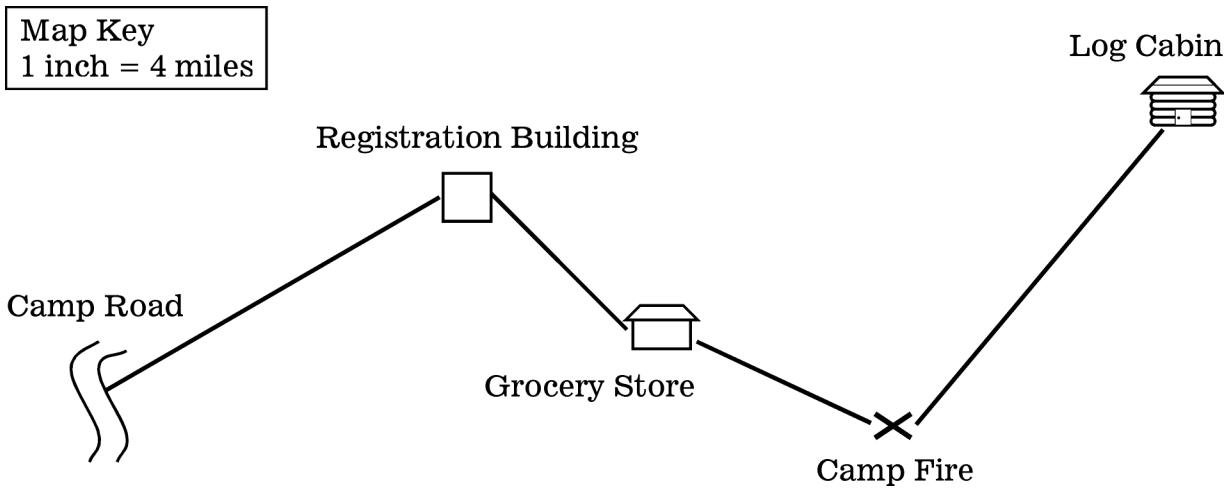
7. Look at each pair of numbers shown. Which pair contains two composite numbers?

- ⬭ 21, 33
- ⬭ 19, 31
- ⬭ 25, 37
- ⬭ 39, 43

8. Which dashed line is a line of symmetry?



9. Look at the map below. Use a ruler to measure the line segments in inches.



What is the distance in miles from the Camp Road to the log cabin?

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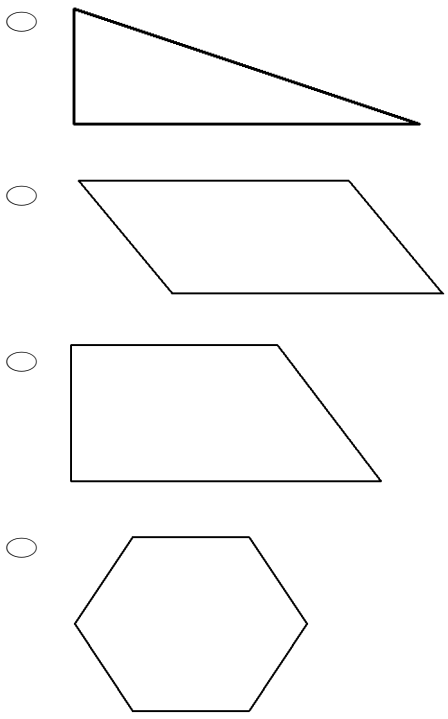
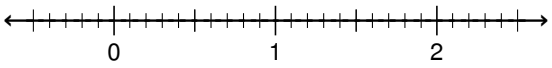
10. Victor tries to draw a line of symmetry through each figure. He quickly discovers that only one figure has a line of symmetry. Which figure has a line of symmetry?



11. Theresa had some friends over for dinner. They ate 1.6 buckets of fried chicken.

Show the decimal on the number line.



Write the decimal as a mixed number.

12. A bag of gumdrops contains 39 pieces of candy. Approximately how many gumdrops would Marcie have if she bought 11 bags for a party?

○ 300 ○ 400 ○ 500 ○ 550

13. Hallmark Elementary School has 1,032 students.

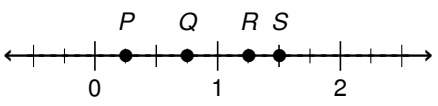
Anwari Elementary School has 1,189 students.

What is the total number of students at the 2 schools?

14. Brady works at a restaurant. He ordered a total of 44,073 straws and 54,371 napkins. Which statement is true about his number of straws and napkins?

- ⬭ The value of the tens place in each of the numbers is more than 70.
- ⬭ The value of the hundreds place in each of the numbers is greater than 500.
- ⬭ The value of the thousands place in each of the numbers is 4,000.
- ⬭ The value of the ten thousands place in the number of napkins ordered is 40,000.

15. The number 0.25 is best represented by which point?



⬭ *P* ⬭ *Q* ⬭ *R* ⬭ *S*

16. Which of the following shapes has the greatest number of lines of symmetry?

⬭ trapezoid ⬭ rhombus

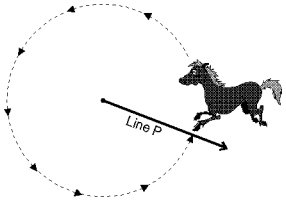
⬭ square ⬭ circle

17. What is the difference between the distance run in a 2000-meter race and the distance run in a 150-meter race?

⬭ 1,840 m ⬭ 1,850 m

⬭ 1,950 m ⬭ 2,150 m

18. The ponies at a street fair are trained to walk slowly in a circle so that children can safely ride on them. One day, Marcos rode a pony in a complete circle. He began to ride at Line P and stopped at the same place he started.



Which of these describes the rotation that Marcos rode?

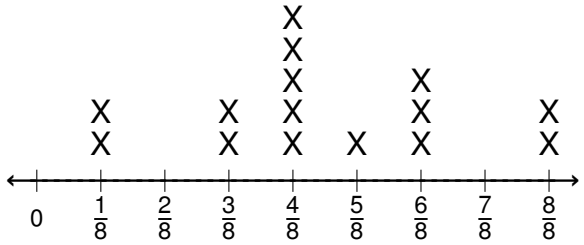
⬭ 1 degree ⬭ 90 degrees

⬭ 180 degrees ⬭ 360 degrees

19. Use the data below to answer the following question(s).

The Diamond Mine is a store that sells diamond rings. The unit of measure to describe the weight of a diamond is called a carat. The store kept track of the weight of diamonds sold during one week and recorded the information in the line plot.

Diamond Weight (carats)



What is the difference between the weight of diamond that was sold most and least often?

20. Sam was playing a game with tiles. He could trade tiles as shown.

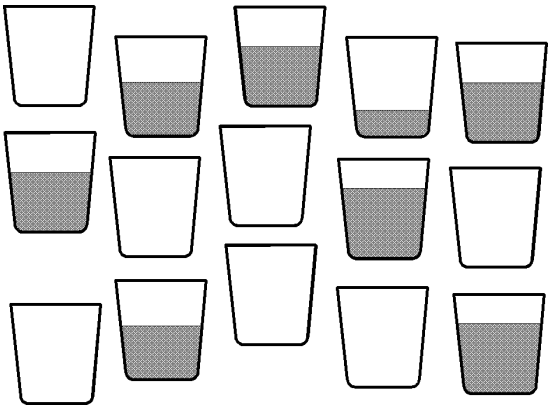
[Blue] = [Red] [Red]

[Red] = [White] [White] [White]

Complete the table to show Sam two other ways that he can trade tiles.

words	drawings
1 Blue =	[Blue] =
4 Red =	[Red] [Red] [Red] [Red] =

21. Mr. Collier was cleaning up after his daughter's birthday party. What fraction of all the cups still have juice in them?



22. What is the pattern in this sequence of numbers?

27, 23, 19, 15, 11, ...

- ⬭ They decrease by 2 each time.
- ⬭ The numbers decrease by 4 each time.
- ⬭ They decrease by subtracting 6.
- ⬭ The numbers decrease by 3 each time.

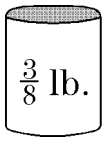
23. Gus is only 4 feet 7 inches tall, but his brother is 5 feet 2 inches tall. How much shorter is Gus than his brother?

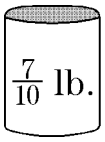
- ⬭ 5 in.
- ⬭ 7 in.
- ⬭ 9 in.
- ⬭ 1 ft 7 in.

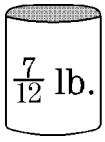
24. A square picture frame has an area of 16 $in.^2$. What size picture should be placed in the frame?

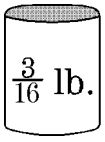
- ⬭ 2 in. × 2 in.
- ⬭ 2 in. × 8 in.
- ⬭ 3 in. × 3 in.
- ⬭ 4 in. × 4 in.

25. Kristin is bagging up chocolates to give away on Valentine's Day. In order to have enough for everyone, each bag needs to weigh between $\frac{1}{4}$ lb and 1 lb. One of the bags does not contain the correct amount. Which one is it?

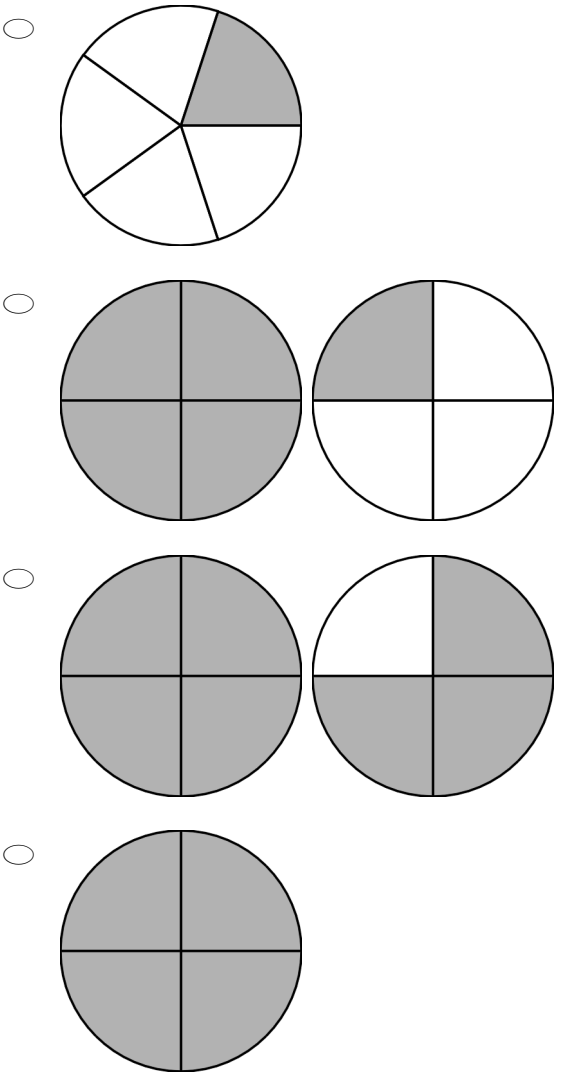
- ⬭ 

- ⬭ 

- ⬭ 

- ⬭ 

26. Which model shows $\frac{5}{4}$ shaded?



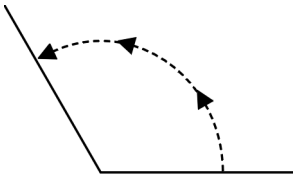
27. A plane left Cleveland at 8:10 am and arrived in Tampa at 1:35 pm. How long was the flight?

- ⬭ 3 h 25 min
- ⬭ 4 h 25 min
- ⬭ 5 h 25 min
- ⬭ 7 h 25 min

28. If two railroad tracks extended indefinitely in both directions without ever curving, the tracks could be thought of as a pair of _____.

- ⬭ lines
- ⬭ line segments
- ⬭ rays
- ⬭ rectangles

29. Look at the picture of a door from above. Khalid opened the door and rotated it 120 degrees before the door stopped.



door

How many one-degree turns did the door make?

- ⬭ 60 degrees
- ⬭ 80 degrees
- ⬭ 120 degrees
- ⬭ 240 degrees

30. Mr. Smith used $\frac{6}{9}$ can of blue paint on Monday.

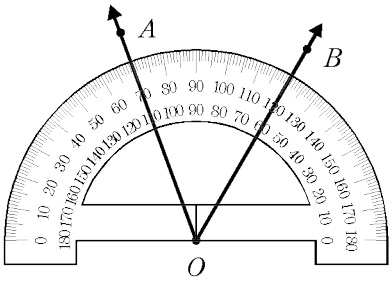
He use $\frac{2}{3}$ can of red paint on Tuesday.

Did he use the same amount of paint on Monday and Tuesday?

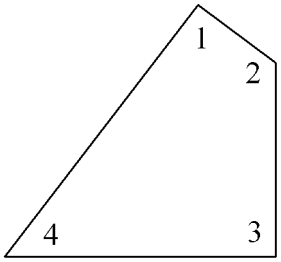
Explain your answer.

31. Find the measure of $\angle AOB$.

○ 50° ○ 60° ○ 70° ○ 120°



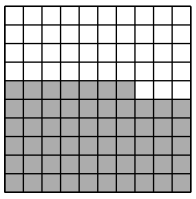
32. Which angle in the figure best represents an acute angle?

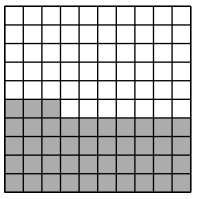


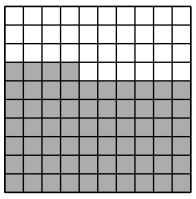
○ angle 1 ○ angle 2

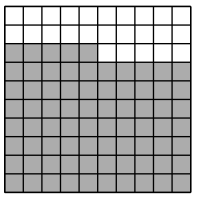
○ angle 3 ○ angle 4

33. Which model shows $\frac{57}{100}$ shaded?

○ 

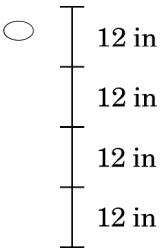
○ 

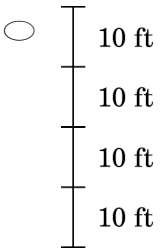
○ 

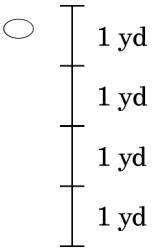
○ 

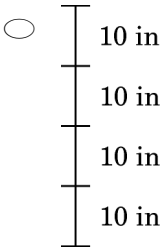
34. Using decimals, indicate how many stars are black.

35. Laurie is 4 feet tall. Which picture shows a representation of how tall she is?

○ 

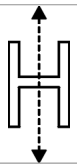
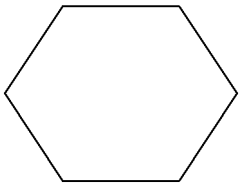
○ 

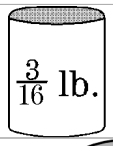
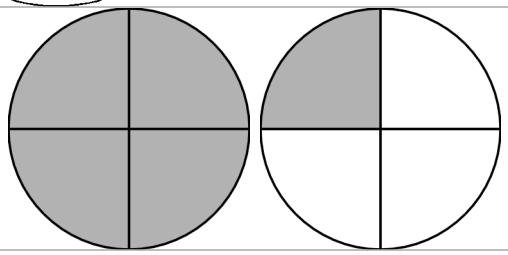
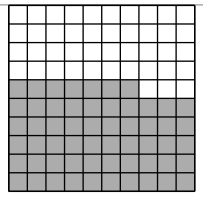
○ 

○ 

Problem-Attic Sample Document
all items from CCSS Math Database

Grade 4

Num	Scoring	Standard	Answer
1	B	4.NF.02	$\frac{4}{8} > \frac{4}{10}$
2	C	4.MD.03	12 yards
3	C	4.OA.03	Travis has 46 baseball trading cards and says he has about 50.
4		4.NBT.01	2,800 4,829 27,850
5	D	4.OA.05	7×13
6	D	4.OA.03	the number of times children slide down playground equipment during recess
7	A	4.OA.04	21, 33
8	D	4.G.03	
9		4.MD.02	24 miles
10	D	4.G.03	
11		4.NF.06	[graph]; $1\frac{60}{100}$
12	B	4.OA.03	400
13		4.OA.03	2,221
14	C	4.NBT.01	The value of the thousands place in each of the numbers is 4,000.
15	A	4.NF.06	*P*
16	D	4.G.03	circle
17	B	4.NBT.04	1,850 m
18	D	4.MD.05A	360 degrees
19		4.MD.04	$\frac{1}{8}$ carat
20		4.OA.03	1 blue = 6 white; [graph]; 4 red = 2 blue [graph]
21		4.NF.01	$\frac{8}{15}$
22	B	4.OA.05	The numbers decrease by 4 each time.
23	B	4.MD.02	7 in.
24	D	4.MD.03	4 in. $\times$ 4 in.

25	D	4.NF.02	
26	B	4.NF.03B	
27	C	4.MD.02	5 h 25 min
28	A	4.G.01	lines
29	C	4.MD.05B	120 degrees
30		4.NF.02	Yes, $\frac{6}{9}$ and $\frac{2}{3}$ are equivalent fractions.
31	A	4.MD.06	50°
32	D	4.G.01	angle 4
33	A	4.NF.06	
34		4.NF.06	0.20 because 2 of 10 stars are black
35	A	4.MD.01