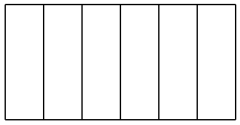
1. Color the shapes to show the correct fraction.

$\frac{4}{6}$



Now draw a line to split the figure equally.

After drawing the line, are the pieces larger or smaller than they were at the beginning?

What is the name of each piece after drawing the line?

2. Tobias picked 6 more berries than Sage. Sage picked 8 more berries than Riley. Riley picked 12 berries. How many berries did Tobias pick?

Ⓐ 26 berries because $12 + 8 + 6 = 26$

Ⓑ 14 berries because $6 + 8 = 14$

Ⓒ 60 berries because $6 \times 8 + 12 = 60$

Ⓓ 2 berries because $8 - 6 = 2$

3. Which is the *best* estimate for the capacity of a coffee cup?

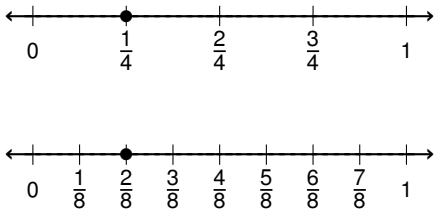
Ⓐ 2 milliliters

Ⓑ 20 milliliters

Ⓒ 200 milliliters

Ⓓ 2,000 milliliters

4. Gabriella looked at the points on two different number lines.



Which of these is a reasonable conclusion for Gabriella to draw about the points?

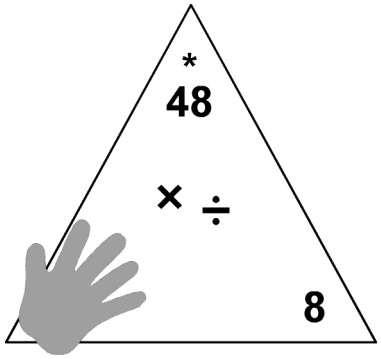
Ⓐ $8 > 4$

Ⓑ $\frac{1}{4} = \frac{2}{8}$

Ⓒ $\frac{1}{4} > \frac{2}{8}$

Ⓓ $\frac{1}{4} < \frac{2}{8}$

5. Jennifer placed her hand over one corner of the fact triangle.



Which of these will help find the number under her hand?

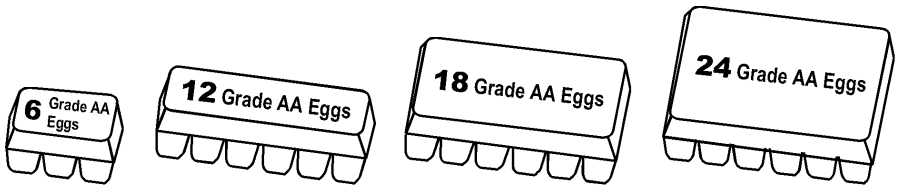
Ⓐ $4 \times 8 = 48$

Ⓑ $6 \times 8 = 48$

Ⓒ $7 \times 8 = 48$

Ⓓ $8 \times 8 = 48$

6. Mario needs to buy 40 eggs for the charity breakfast. The picture shows different size "flats" that he can buy.



Flat 1 Flat 2 Flat 3 Flat 4

Which 2 flats should he buy to come as close as possible to 40 eggs?

Ⓐ Flat 3 and 4 Ⓑ Flat 2 and 4 Ⓒ Flat 2 and 3 Ⓓ Flat 1 and 4

---

7. Write a number in the square and in the circle to make a true number sentence.

$\square - \bigcirc = 24$

Is there more than one pair of numbers that will make a true sentence?

Write at least two different pair of numbers to make a true sentence.

8. Carol and her friends bought 4 boxes of doughnuts. There were a dozen doughnuts in each box. They ate 40 doughnuts altogether. How many doughnuts were left?

Ⓐ 8 Ⓑ 12 Ⓒ 36 Ⓓ 48

9. There are 3 boxes of door hinges. There are 150 door hinges in all.

$3 \times \_\_\_\_ = 150$

How many hinges in each box?

Ⓐ 30 Ⓑ 40 Ⓒ 50 Ⓓ 60

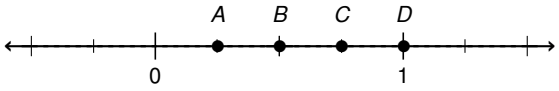
10. Lacy placed 5 paper napkins on each table. There are 80 tables.

Which of these tells how many paper napkins in all?

Ⓐ 40 ones Ⓑ 10 ones

Ⓒ 40 tens Ⓓ 10 tens

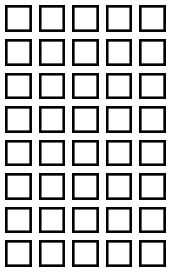
11. Marinda said that she could only eat $\frac{1}{2}$ of her sandwich. Which point best represents $\frac{1}{2}$ on the number line?



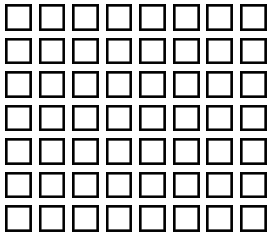
Ⓐ A Ⓑ B Ⓒ C Ⓓ D

12. Which drawing shows eight times seven?

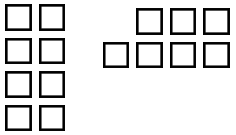
Ⓐ



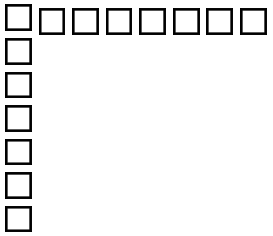
Ⓑ



Ⓒ



Ⓓ

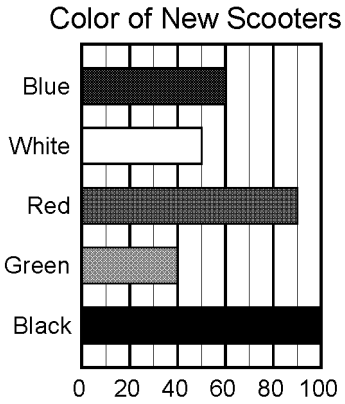


13. Drew and his dad want to cut a display board for a science project. The length around the edge of the board must be 18 feet. Complete the table.

Area (square feet)	Length (feet)	Width (feet)	Perimeter (feet)
9	3		12
16	4		
25	5		
49	7		

What is the largest display board for the needed length around the edge?

14. Ashton sells new scooters. He recorded on a graph the colors of the new scooters he sold last year.



The total number of green scooters and black scooters that Ashton sold last year was the same as the total number of—

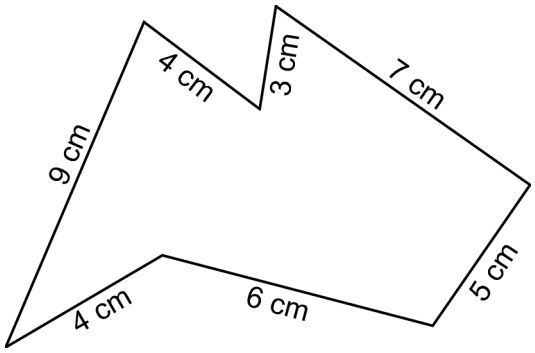
Ⓐ red scooters and green scooter

Ⓑ white scooters and red scooters

Ⓒ blue scooters and red scooters

Ⓓ white scooters and green scooters

15. What is the perimeter of the polygon?



Ⓐ 31 cm Ⓑ 35 cm

Ⓒ 38 cm Ⓓ 46 cm

16. Ms. Carrell wants to paint a wall. She measured the wall and wrote an expression to describe the area.

I. $4(4 + 5)$

II. 9×4

III. $5(4 + 4)$

IV. $(4 \times 4) + (5 \times 4)$

Which of these could be the expression Ms. Carroll wrote?

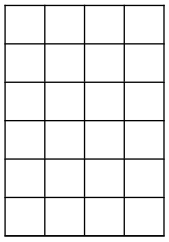
Ⓐ I only

Ⓑ I and IV only

Ⓒ II and III only

Ⓓ I, II, and IV only

17. Diana used unit squares to cover a figure. There were no spaces between the squares. Diana made sure that no square was placed on top of another square.



What is the area of the figure?

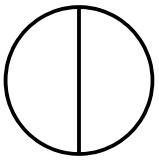
Ⓐ 24 units

Ⓑ 24 square units

Ⓒ 4 units

Ⓓ 4 square units

18. The figure is divided into two equal parts.



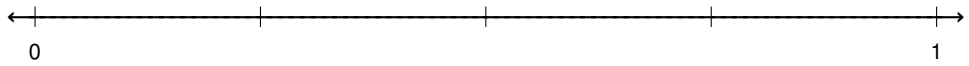
Which of these is the fractional name of each part?

Ⓐ $\frac{1}{4}$ Ⓑ $\frac{2}{2}$ Ⓒ $\frac{2}{1}$ Ⓓ $\frac{1}{2}$

19. Jun watched his cat one day and kept track of the time the cat spent napping.

$\frac{1}{2}$	$\frac{1}{4}$	$\frac{3}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{2}$

Length of Cat Naps
(hours)

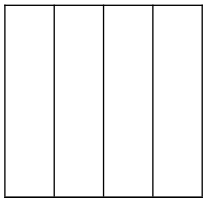


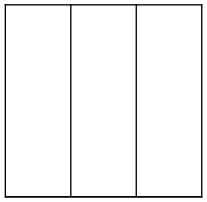
Label the line with the correct fractions.

Make a line plot to show the information.

Which amount of time did Jun's cat spend napping most often?

20. The Ace Parking lot has four empty spaces. The Central Parking lot has three empty spaces.

Ace Parking 

Central Parking 

Which parking lot has larger spaces?

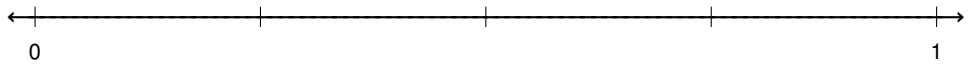
Ⓐ Central Parking because $\frac{1}{3} > \frac{1}{4}$.

Ⓑ Ace Parking because $\frac{1}{4} > \frac{1}{3}$.

Ⓒ Ace Parking because the parking lot has more empty spaces.

Ⓓ Ace Parking becaues the denominator 4 is greater than the denominator 3.

21. Mr. Whitmore drew a number line. He forgot to label the parts.



How many parts are there?

Label the number line with fractions that each have the same denominator.

What is the denominator of each fraction?

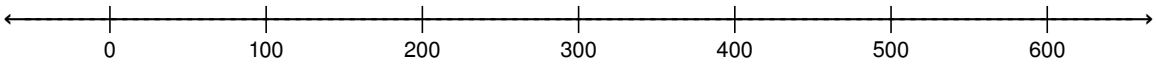
How do you know?

Draw a point to show the unit fraction and label the point B.

22. Mr. Richter knows he needs 63 bricks to build a 5 foot long wall.

a) Mr. Richter needs to build a 15 foot long wall. How many bricks will he need?

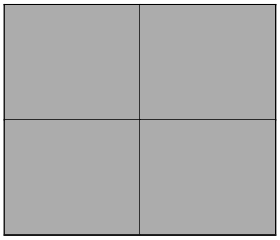
b) Rounded to the nearest hundred, how many bricks will he need? Show the number on the number line.

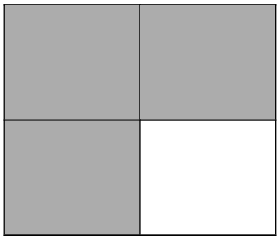


c) To build a shorter wall, he will need 36 bricks to build a 4 foot long wall. How many bricks will Mr. Richter need to build a 15 foot long wall?

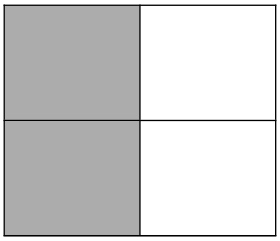
d) To allow for mistakes and breakage, Mr. Richter wants to buy 15 extra bricks for his shorter wall. How many bricks will he need now?

23. Mrs. Denson drew a square on the board and shaded $\frac{3}{4}$ of it. Which square did she draw?

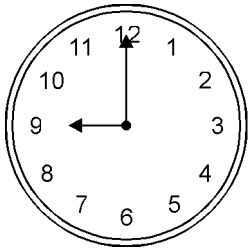
Ⓐ 

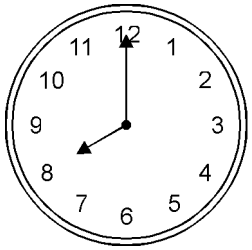
Ⓑ 

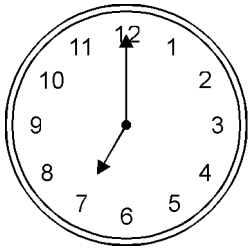
Ⓒ 

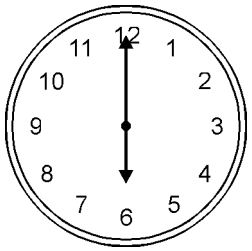
Ⓓ 

24. Mr. Ortiz goes for a walk every evening at 7:00. He stops walking 1 hour later. Which clock shows the time he stops walking?

Ⓐ 

Ⓑ 

Ⓒ 

Ⓓ 

25. Chase snapped together plastic bricks to make a wall.

He counted 28 bricks in the first row.

Then he added . . .

- 24 bricks in the second row
- 20 bricks in the third row
- 16 bricks in the fourth row

If the pattern continues, how many plastic bricks will Chase add in the sixth row?

26. Look at the number line.

What number belongs where you see the letter *A*?

Ⓐ 0 Ⓑ 2 Ⓒ 6 Ⓓ 18

27. Lily collected postcards on her trip to Florida and taped them into a scrapbook. She put the same number of postcards on each page.

pages	1	2	3	4	5	6	7	8
postcards	3	6	9	12	15	?	21	24

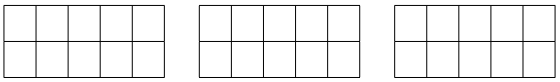
What was the total number of postcards on page 6?

Ⓐ 17 Ⓑ 18 Ⓒ 19 Ⓓ 20

28. John made 3 towers. He put 5 blocks on each tower.

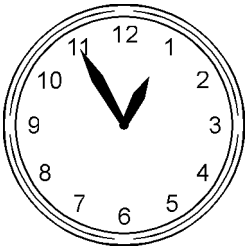
How many blocks did John use in all?

Use the ten frames to help you.

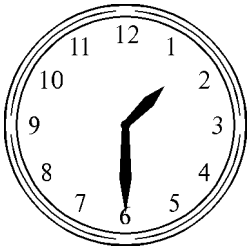


29. Each Friday the elementary students attend school chorus practice. The first clock shows when the school chorus practice begins. The second clock shows when the school chorus practice ends.

Practice begins



Practice ends

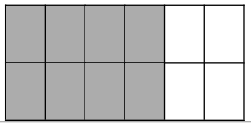
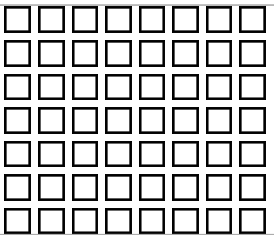


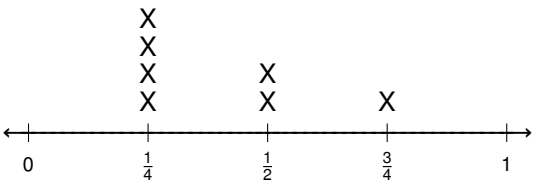
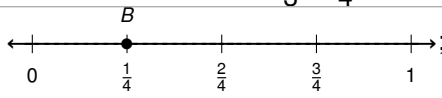
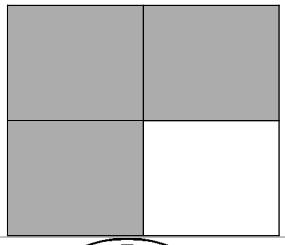
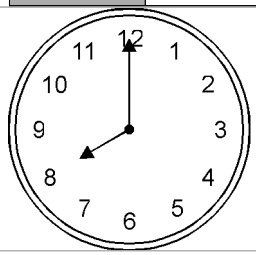
How many minutes long is the school chorus practice?

The school day begins exactly 5 hours before school chorus practice begins. At what time does school begin? Show your answer on the clock.

Problem-Attic Sample Document
all items from CCSS Math Database

Grade 3

Num	Scoring	Standard	Answer
1		3.NF.01	 smaller; $\frac{1}{12}$
2	A	3.OA.08	26 berries because 12 + 8 + 6 = 26
3	C	3.MD.02	200 milliliters
4	B	3.NF.03A	$\frac{1}{4} = \frac{2}{8}$
5	B	3.OA.06	$6 \times 8 = 48$
6	A	3.OA.08	Flat 3 and 4
7		3.NBT.02	[answers vary] ex: 32 – 8, 30 – 6, 28 – 4
8	A	3.OA.08	8
9	C	3.NBT.03	50
10	C	3.NBT.03	40 tens
11	B	3.NF.02A	B
12	B	3.OA.01	
13		3.MD.08	Area (square feet) / Length (feet) / Width (feet) / Perimeter (feet) 9 / 3 / 3 / 12 16 / 4 / 4 / 16 25 / 5 / 5 / 20 49 / 7 / 7 / 28 ; Drew needs to cut the board to 4 feet square. The perimeter of 16 feet will be enough because 16 < 18
14	B	3.MD.03	white scooters and red scooters
15	C	3.MD.08	38 cm
16	D	3.MD.07C	I, II, and IV only
17	B	3.MD.05B	24 square units
18	D	3.G.02	$\frac{1}{2}$

19		3.MD.04	Length of Cat Naps (hours)  ; $\frac{1}{4}$ hour
20	A	3.NF.03A	Central Parking because $\frac{1}{3} > \frac{1}{4}$.
21		3.NF.02A	4;  ; 4; [explanation]
22		3.NBT.01	189; 200; 135; 150
23	B	3.NF.01	
24	B	3.MD.01	
25		3.OA.09	8
26	A	3.OA.09	0
27	B	3.OA.09	18
28		3.OA.01	15; [graph]
29		3.MD.01	35 minutes; 7:55; [graph]