VIRGINIA STANDARDS OF LEARNING

Spring 2010 Released Test

GRADE 4 MATHEMATICS

Form M0110, CORE 1

Directions

Read each question and choose the best answer.

SAMPLE

Which number has a 9 in the ones place?

A 9,555
B 5,955
C 5,595
D 5,559

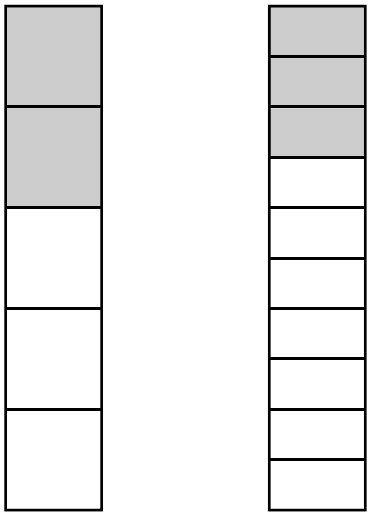
1 The difference between 76,423 and 29,876 is *best* described as closest to —

A 60,000
B 50,000
C 40,000
D 30,000

2 53×18 is *closest* to —

F 100
G 600
H 1,000
J 1,800

3 What is the sum of the fractions shown by the shaded parts of the models?



Model 1 $\frac{2}{5}$

Model 2 $\frac{3}{10}$

A $\frac{5}{15}$

B $\frac{5}{10}$

C $\frac{7}{10}$

D $\frac{10}{15}$

4 $4.2 - 2.86 = \underline{\quad ? \quad}$

F 1.34
G 2.66
H 3.28
J 7.06

5 **The difference $743 - 239$ is *best* described as a little more than —**

A 200
B 300
C 400
D 500

6 $6\overline{)138}$

F 21
G 23
H 24
J 28

7 $3.76 + 2.99 = \underline{\ ?\ }$

A 5.65
B 5.75
C 6.65
D 6.75

8 **Which is *closest* to $82 \div 7$?**

F 10
G 20
H 30
J 40

9 **What is the difference between $\frac{6}{7}$ and $\frac{2}{7}$?**

A $\frac{4}{0}$

B $\frac{4}{14}$

C $\frac{4}{7}$

D $\frac{8}{7}$

10 Ms. Kraft bought 4 bags of rocks for her garden. Each bag contained 107 rocks. What is the total number of rocks she bought?

$$107 \times 4 = \underline{\ ?\ }$$

F 408

G 424

H 428

J 468

11 Kim and José shared one whole pizza. Kim ate $\frac{4}{6}$ of the pizza, and José ate $\frac{3}{12}$ of the pizza. How much of the pizza was eaten?

A $\frac{1}{12}$

B $\frac{5}{12}$

C $\frac{7}{12}$

D $\frac{11}{12}$

12

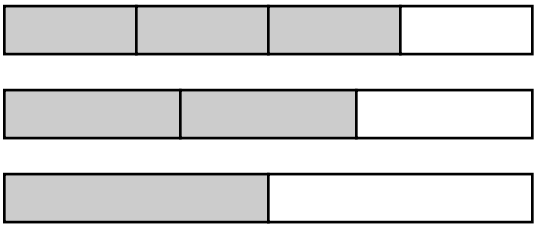
$$\begin{array}{r} \mathbf{71{,}965} \\ -\mathbf{42{,}749} \\ \hline \end{array}$$

F 29,216
G 31,224
H 39,124
J 39,226

Do not turn the page until you are told.

STOP

13 The fraction bars each show one whole divided into fractional parts.



Which is true?

A $\frac{1}{2} > \frac{2}{3}$

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

C $\frac{2}{3} = \frac{3}{4}$

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

14 How is 75,054 written in words?

F Seventy-five, fifty-four

G Seventy-five hundred, fifty-four

H Seventy-five thousand, fifty-four

J Seventy-five thousand, five hundred four

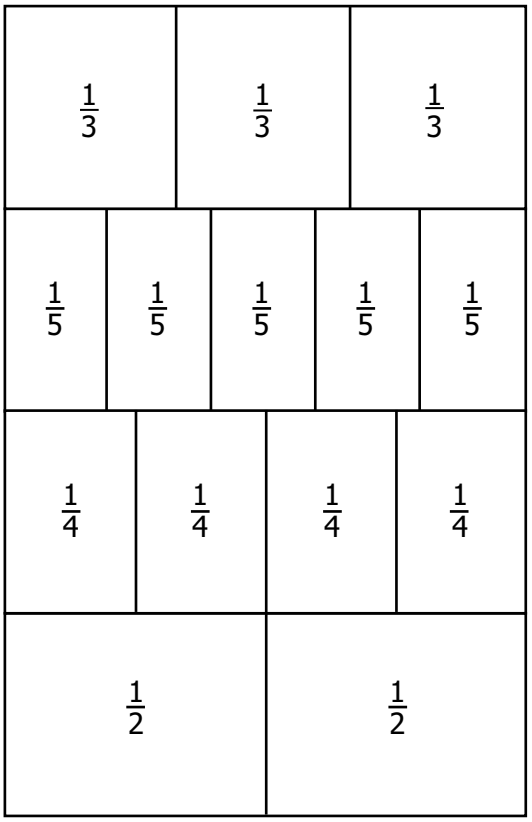
15 Which statement is true?

A $6,785 = 6,857$
B $4,958 < 9,350$
C $9,350 < 4,958$
D $5,092 > 5,902$

16 What is 265,200 rounded to the nearest hundred thousand?

F 200,000
G 265,000
H 270,000
J 300,000

17 There are 4 fraction strips shown.



Which fraction has the least value?

A $\frac{1}{3}$

B $\frac{1}{5}$

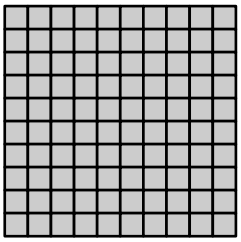
C $\frac{1}{4}$

D $\frac{1}{2}$

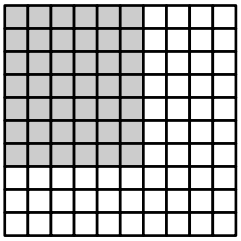
18 Which of the following numbers will round to 26 ?

F 25.3
G 25.5
H 26.7
J 27.1

19 This model is shaded to represent the number 1.



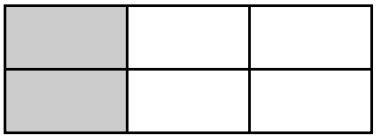
The model shown is shaded to represent part of 1.



Which decimal *best* represents the shaded part of this model?

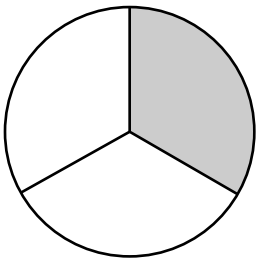
A 0.42
B 0.042
C 4.2
D 42

20 This model represents $\frac{2}{6}$.

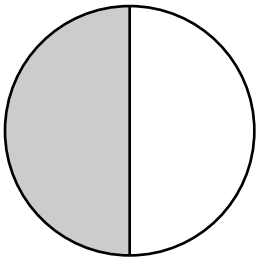


Which model represents a fraction that is equivalent to $\frac{2}{6}$?

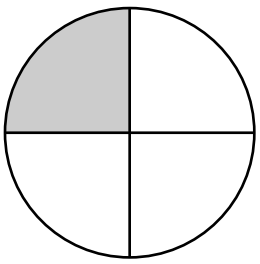
F



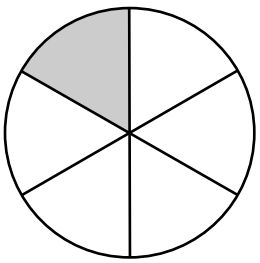
G



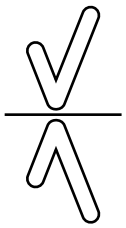
H

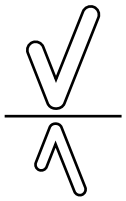


J



21 Which pair of figures appears to be congruent?

A 

B 

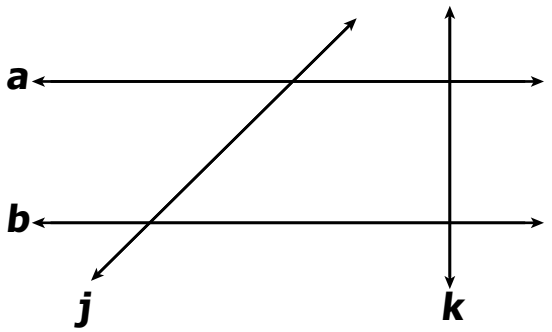
C 

D 

22 A puppy weighs 2 pounds. What is the puppy's weight in ounces?

F 32 ounces
G 20 ounces
H 16 ounces
J 8 ounces

23 The drawing shows lines *a*, *b*, *j*, and *k*.



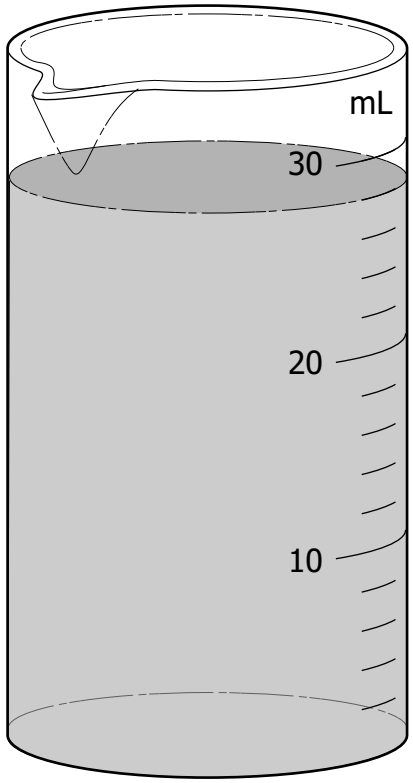
Which of the following pairs of lines appear to be perpendicular?

A Lines *a* and *j*
B Lines *b* and *j*
C Lines *a* and *k*
D Lines *a* and *b*

24 A paper clip is 2.5 centimeters long. Which is closest to the length, in inches, of the paper clip?

F 1
G 2
H 5
J 12

25 Which measurement is *closest* to the volume of liquid in this beaker?

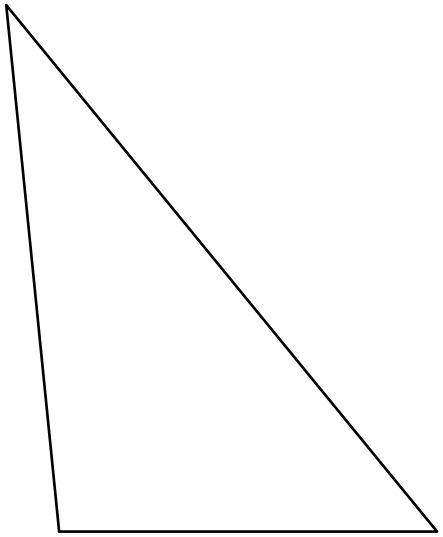


A 10 milliliters
B 20 milliliters
C 30 milliliters
D 40 milliliters

26 Which is true of a square?

F It has no sides of equal length.
G It has 4 curved sides.
H It has only 1 pair of parallel sides.
J It has 4 right angles.

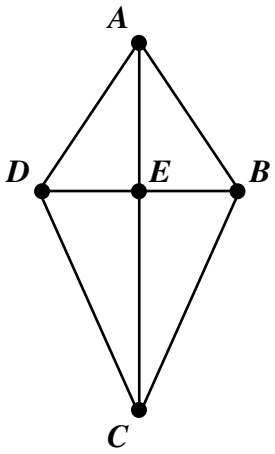
27 Use your centimeter (cm) ruler to answer this question.



Which is closest to the perimeter of the figure shown?

A 21 cm
B 18 cm
C 12 cm
D 9 cm

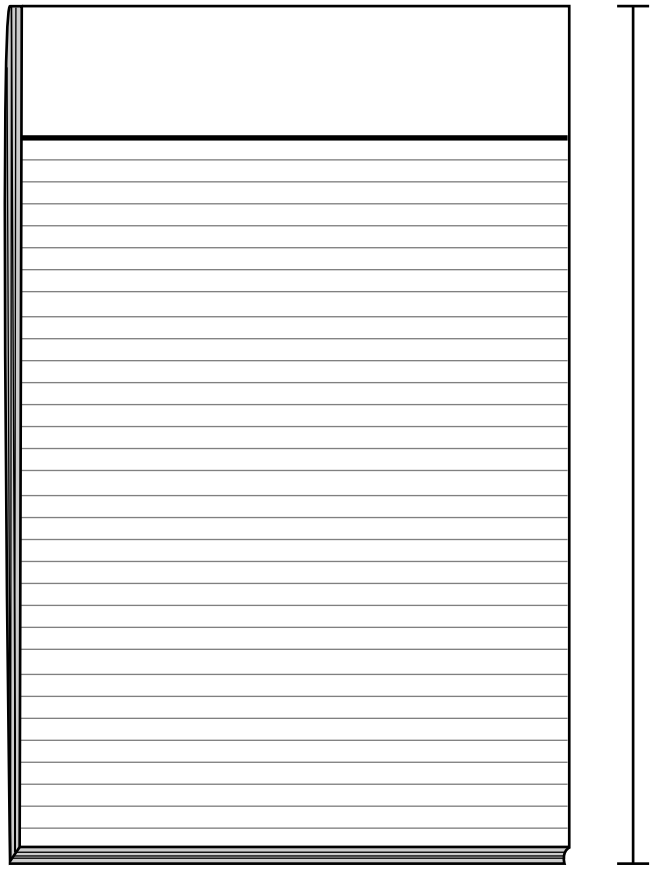
28



What is the maximum number of line segments shown in this drawing?

F 4
G 5
H 10
J 11

29 Use your inch ruler to help you answer this question.



Which is closest to the length of this notepad?

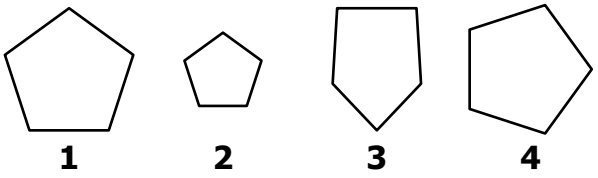
A 4 inches

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

C 5 inches

D $5\frac{1}{2}$ inches

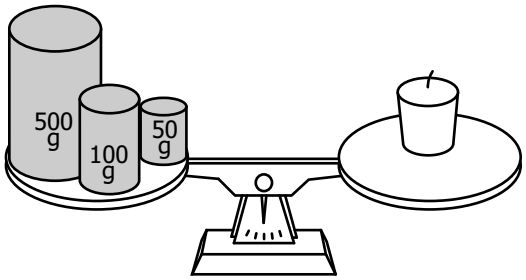
30



Which two shapes appear to be congruent?

F 1 and 2
G 2 and 3
H 3 and 4
J 4 and 1

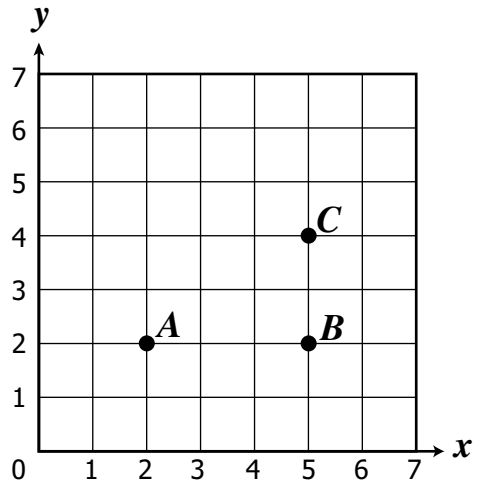
31 **Kenny measured the mass of a candle on a balance scale.**



Which appears to be the mass of the candle pictured?

A 500 g
B 550 g
C 600 g
D 650 g

32 Which ordered pair would have to represent point D in order to complete rectangle $ABCD$?



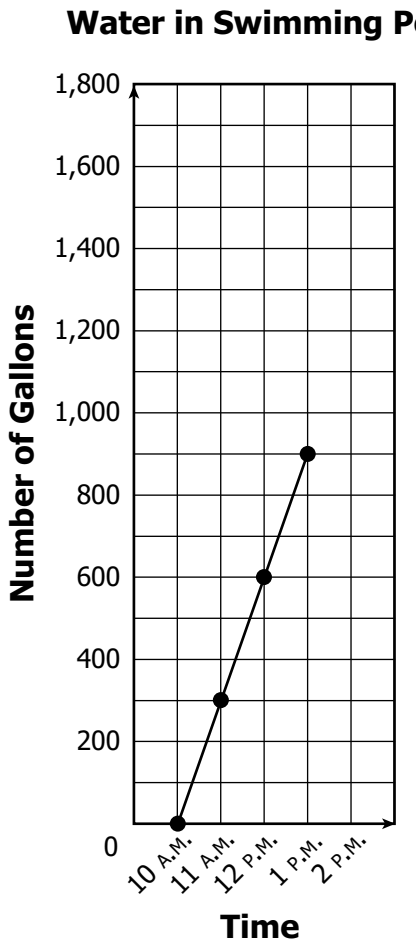
F (2, 4)

G (2, 5)

H (4, 2)

J (5, 2)

33 Gary filled his 10,000-gallon swimming pool with water from a garden hose. He started filling the pool at 10:00 A.M.



Gary continues to add water to the pool at this same rate. Which is closest to the number of gallons of water that will be in the pool at 2:00 P.M. on the same day?

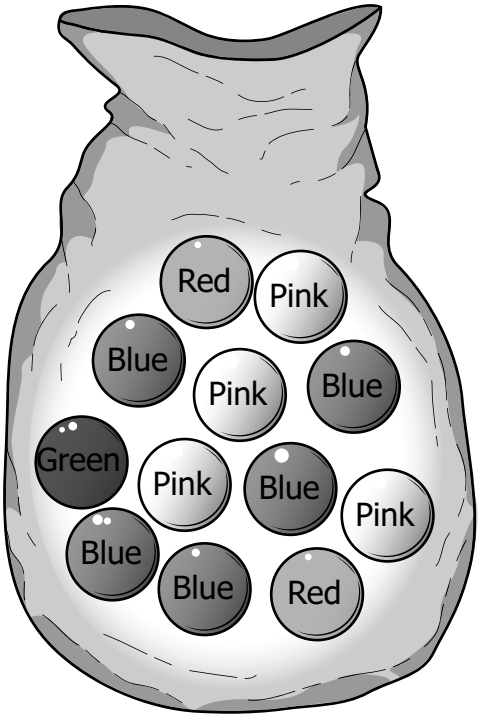
A 300 gallons

B 1,200 gallons

C 1,500 gallons

D 1,600 gallons

34 A pouch contains 5 blue marbles, 2 red marbles, 1 green marble, and 4 pink marbles.



What is the probability that Jorge will select, without looking, a red marble on the first try?

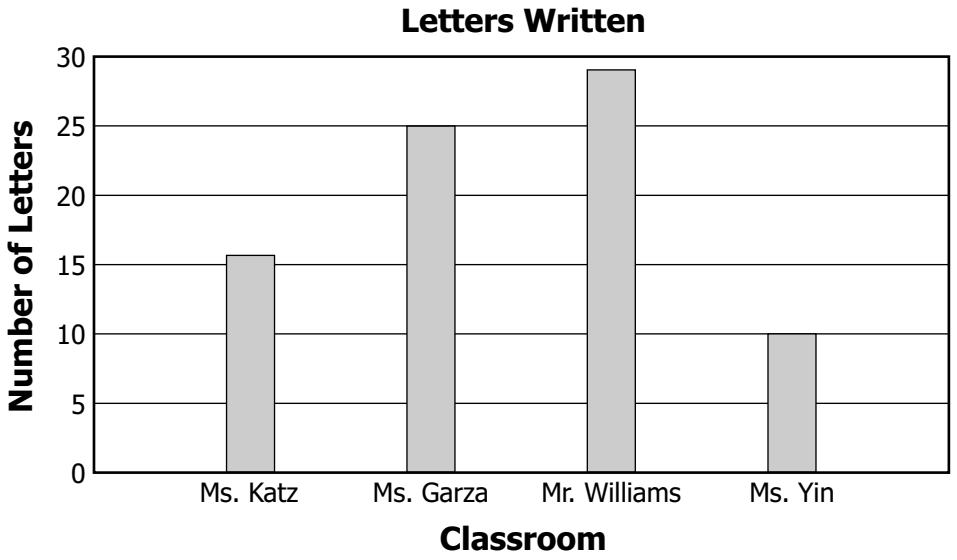
F $\frac{10}{12}$

G $\frac{1}{2}$

H $\frac{2}{10}$

J $\frac{2}{12}$

35 This bar graph shows the number of letters written by students in four third-grade classrooms.



Which question *cannot* be answered using the information in this bar graph?

A Which two classrooms combined wrote 35 letters?

B Which classroom wrote the least number of letters?

C Which classroom wrote the greatest number of letters?

D Which month did Mr. Williams' class write the most letters?

36 The table shows the number of cans of different-colored paint in Mr. Eggan's garage. Each can is the same size.

Mr. Eggan's Paint Cans

Color	Number
	3
	4

Mr. Eggan chooses one paint can without looking. What is the probability the first can chosen will be a can of white paint?

F $\frac{3}{7}$

G $\frac{4}{7}$

H $\frac{3}{4}$

J $\frac{4}{3}$

GO ON

37 Margaret bought a box of 12 doughnuts. It is impossible for the doughnut picked from the box to be glazed. Which of the following is the number of glazed doughnuts in the box?

A 0

B 1

C 2

D 3

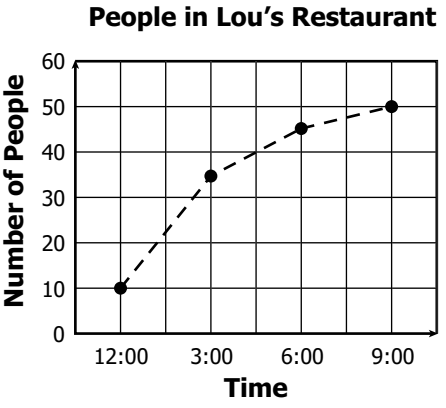
38 This table shows the number of people in Lou's Restaurant at different times during the same day.

People in Lou's Restaurant

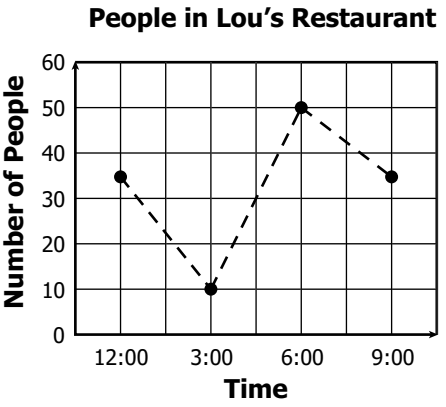
Time	12:00	3:00	6:00	9:00
Number of People	35	10	50	45

Which line graph correctly shows this information?

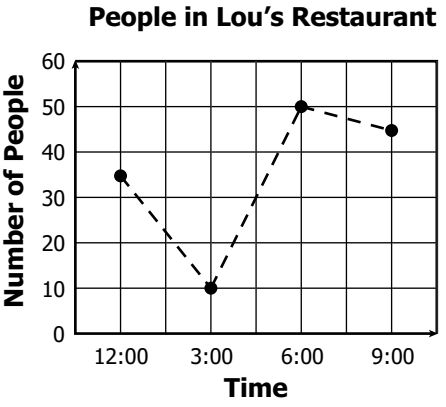
F



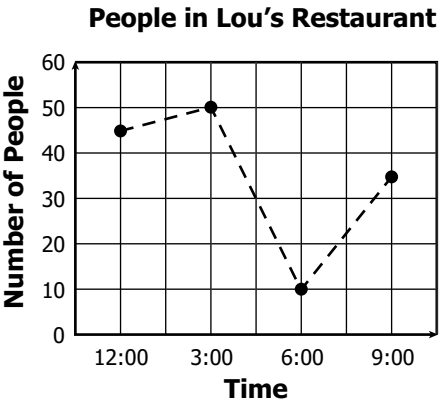
G



H



J



GO ON

39 A box contains 45 bags of cheese popcorn and 5 bags of caramel popcorn. Which of the following *best* describes the chances that the first bag of popcorn taken from the box will be caramel popcorn?

A Impossible

B Unlikely, but not impossible

C Likely, but not certain

D Certain

40 Taylor put the following fruit stickers of the same size and shape in a bag:

- **2 apple stickers**
- **3 orange stickers**
- **1 pear sticker**
- **2 plum stickers**

Taylor will pick one fruit sticker from the bag without looking. What is the probability the sticker will be a pear sticker?

F $\frac{1}{8}$

G $\frac{1}{7}$

H $\frac{1}{4}$

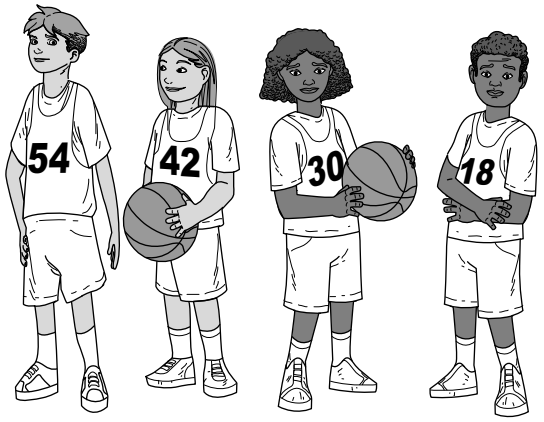
J $\frac{1}{3}$

41 Which number correctly completes this number sentence?

$$45 + (14 + 17) = (14 + 45) + \square$$

A 59
B 45
C 17
D 14

42 When four members of a basketball team stand in a certain order as shown, the numbers on their uniforms make a pattern.



Which rule describes this pattern?

F Add 8
G Multiply by 9
H Divide by 6
J Subtract 12

43 Which number sentence is true?

A $21-(7+6)=7+(21+6)$

B $33+(18+2)=18+(33+2)$

C $15+(19+24)=19+(24-15)$

D $29+(16-3)=16+(29+3)$

44 This table shows the number of minutes Lee practiced tennis during 4 weeks.

Tennis Practice

Week	Minutes
1	75
2	120
3	165
4	210

If the pattern shown in the table continues in the same way, how many minutes will Lee practice during the 6th week?

F 365

G 345

H 300

J 255

45 Which number sentence is *not* true?

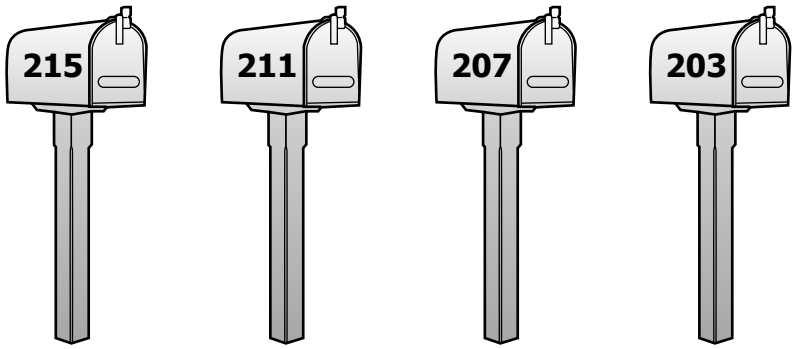
A $(6+5)+3=6+(5+3)$

B $(5\times2)\times1=5\times(2\times4)$

C $(5+5)+2=5+(5+2)$

D $8\times(2\times3)=(8\times2)\times3$

46 The numbers on these mailboxes form a pattern.



This pattern continues in the same way. Which number will be on the next mailbox?

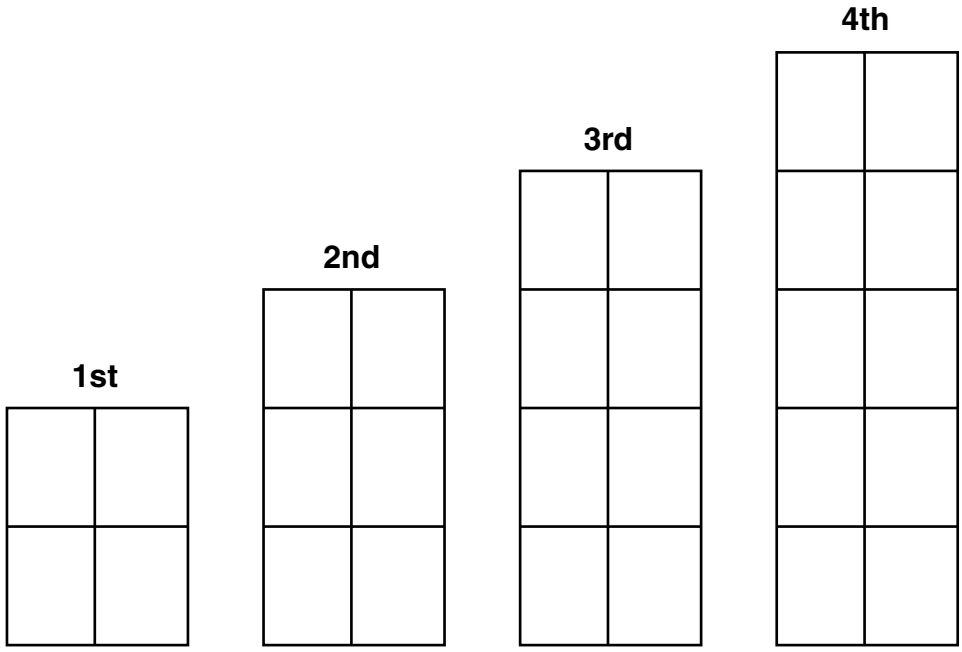
F 202

G 200

H 199

J 197

47 Harry saw these columns being built for a highway overpass. Each of the columns has 2 more blocks than the column before it.



If this pattern continues, how many blocks should the 5th column have?

A 8
B 10
C 12
D 14

48 Which statement is true?

F $2 \times 9 = 3 \times 8$
G $2 \times 9 = 4 \times 6$
H $3 \times 6 = 2 \times 12$
J $3 \times 8 = 4 \times 6$

49 **Look at the pattern of numbers.**

2, 10, 18, __, 34, 42

What is the missing number in this pattern?

A 20
B 26
C 28
D 30

50 **What number makes this number sentence true?**

$$7 + (13 + 4) = (7 + \_\_) + 4$$

F 4
G 7
H 11
J 13

STOP