VIRGINIA STANDARDS OF LEARNING

Spring 2009 Released Test

GRADE 4 MATHEMATICS

Form M0119, CORE 1

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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

GO ON

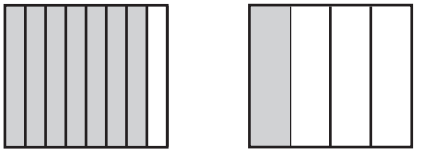
1 Which of the following *best* describes the difference 43,441 − 35,184 ?

A Closer to 10,000 than 8,000
B Closer to 10,000 than 9,000
C Closer to 9,000 than 8,000
D Closer to 8,000 than 7,000

2 What is the sum of 1,292 and 1,379 ?

F 2,661
G 2,671
H 2,681
J 2,761

3 What is the sum of the fractions modeled?



$\frac{7}{8}$ $\frac{1}{4}$

A $\frac{8}{4}$

B $\frac{8}{12}$

C $\frac{3}{2}$

D $\frac{9}{8}$

4 Which is closest to $423 \div 6$?

F 30
G 50
H 70
J 90

5 $1.906 - 0.24 =$

A 1.922
B 1.882
C 1.746
D 1.666

6 **Ada took a three-day driving trip. She drove 425 miles the first day, 378 miles the second day, and 539 miles the third day. About how many miles did Ada drive in the three days?**

F 700 miles
G 800 miles
H 1,300 miles
J 1,500 miles

7 **What is the difference between 112,841 and 92,408 ?**

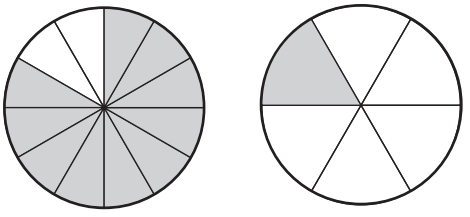
A 20,433
B 20,443
C 20,447
D 20,449

8 $552 \div 6 =$

F 82
G 92
H 812
J 912

9 **What is the difference between the fractions represented by these models?**

Model 1 **Model 2**



$\frac{10}{12} - \frac{1}{6} =$

A $\frac{9}{6}$

B $\frac{8}{12}$

C $\frac{11}{18}$

D $\frac{12}{12}$

10 Lorenzo and Shawn had a paper airplane contest. Lorenzo's airplane flew 20.25 feet. Shawn's airplane flew 16.50 feet. How many feet farther did Lorenzo's airplane fly than Shawn's airplane?

F 3.75
G 4.25
H 4.35
J 4.75

11

$$\begin{array}{r} \$43.69 \\ -\$\ 5.77 \\ \hline \end{array}$$

A $37.92
B $38.92
C $42.12
D $49.46

12 $\begin{array}{r} \mathbf{54} \\ \times\ \mathbf{27} \\ \hline \end{array}$

F 486
G 1,028
H 1,458
J 4,608

Do not turn the page until you are told.

STOP

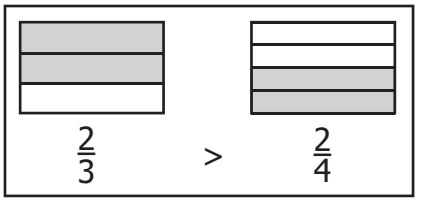
13 Which digit of this number is in the ten thousands place?

473,625

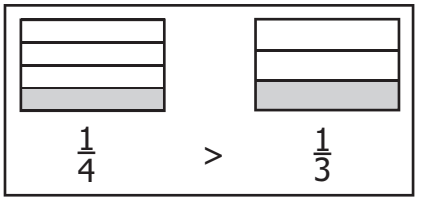
A 2
B 4
C 6
D 7

14 Which fraction card shows a true statement?

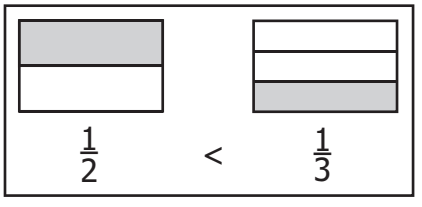
F



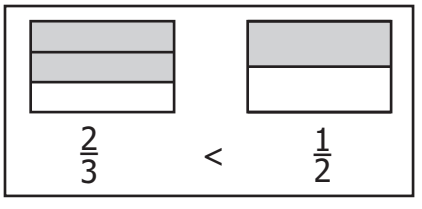
G



H

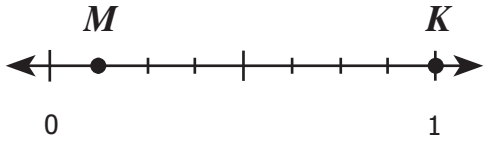


J

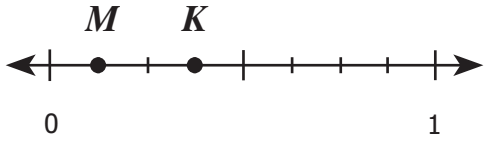


15 **These number lines represent a 1-mile race. Monty ran $\frac{1}{8}$ mile, and Katie ran $\frac{3}{8}$ mile. If point M represents Monty and point K represents Katie, which number line *best* represents how far each ran?**

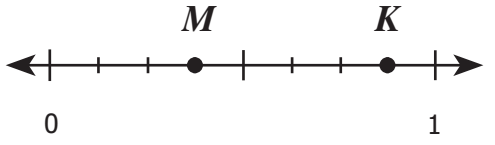
A



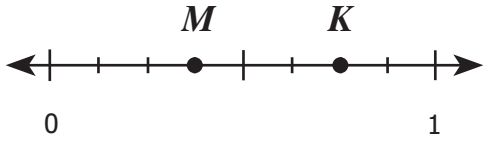
B



C



D



16 **Dominic drew a line that was 2.35 meters long. What is this number rounded to the nearest whole number?**

F 2

G 2.4

H 3

J 3.4

17 Which is correct?

A $2{,}303{,}109 < 2{,}299{,}999$

B $2{,}303{,}109 < 2{,}303{,}099$

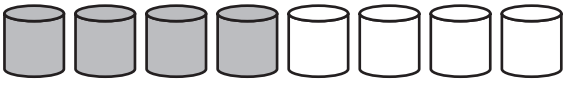
C $2{,}303{,}109 < 2{,}302{,}999$

D $2{,}303{,}109 < 2{,}303{,}110$

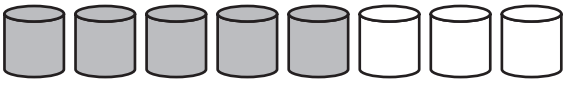
18 A fractional part of this group of leaves is shaded.

Which of the following groups is shaded to represent a fraction with the same value?

F

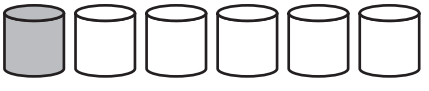


G



H

J



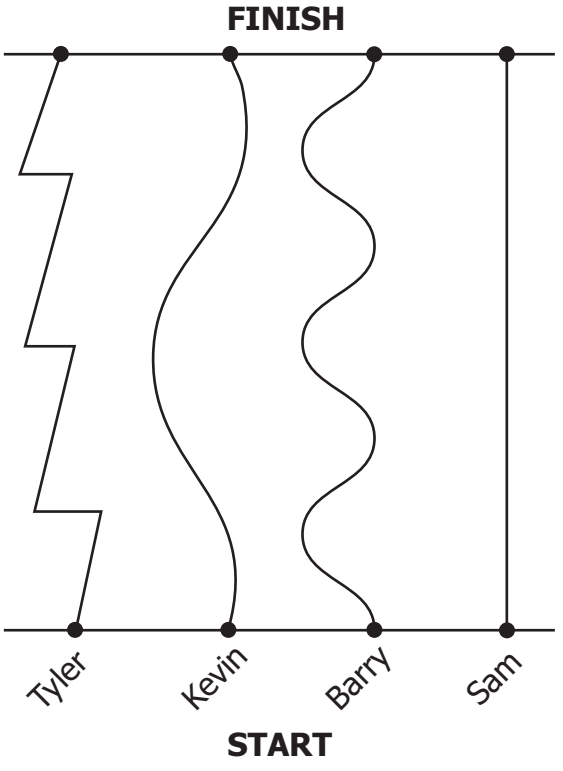
19 When rounded to the nearest ten thousand, which number would be 9,420,000 ?

A 9,412,836
B 9,415,372
C 9,426,105
D 9,428,153

20 Which number is "four hundred five thousandths"?

F 0.045
G 0.45
H 0.405
J 0.4005

21 This diagram represents the paths taken by four students in a race.



Which student took the shortest path from the starting line to the finish line?

A Tyler
B Kevin
C Barry
D Sam

22 During science class, Joseph found that the mass of a rock was 3 kilograms. What was the mass of Joseph's rock in grams?

F 30
G 300
H 3,000
J 30,000

23 Which of the following cards shows a true statement?

A 2 gallons = 8 quarts

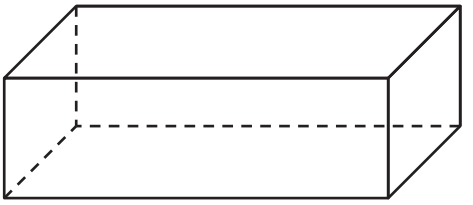
B 2 quarts = 8 pints

C 4 cups = 1 pint

D 4 pints = 1 gallon

24 This drawing shows a rectangle and a rectangular prism.

Rectangle

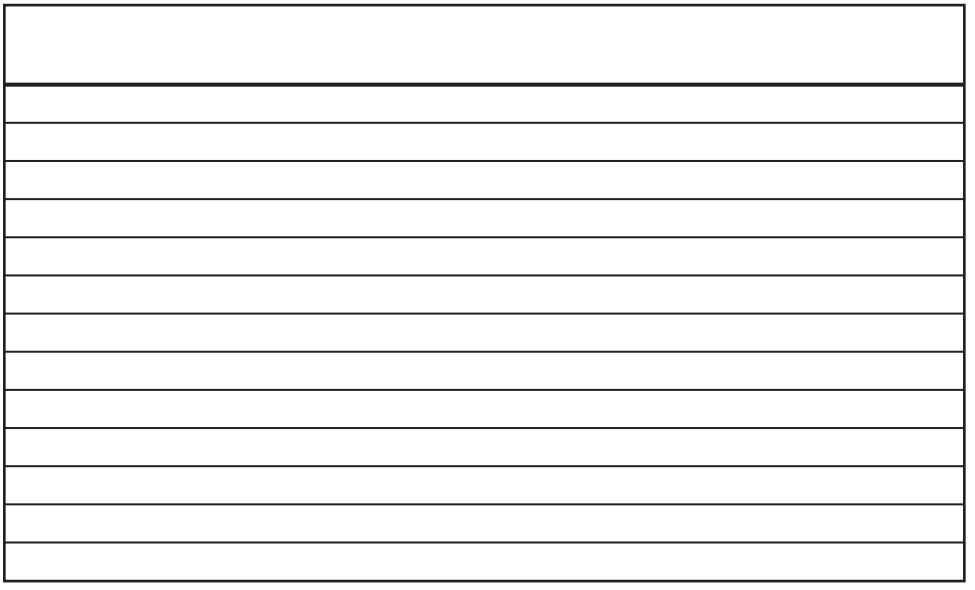


Rectangular Prism

Which is true about these two figures?

F They both have 4 faces.
G They both have 12 edges.
H They both have right angles.
J They both are geometric solids.

25 Use your inch ruler to answer this question.



Which is *closest* to the perimeter of the index card shown?

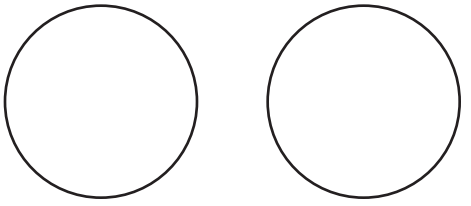
A 8 inches
B 16 inches
C 18 inches
D 40 inches

26 Which of the following *best* describes a line?

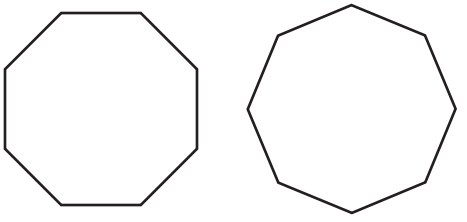
F A collection of points that extends infinitely in two opposite directions
G All the points between two endpoints
H All the points extending infinitely in one direction from one endpoint
J A single, exact location in space without length or width

27 Which pair of geometric figures is *not* congruent to each other?

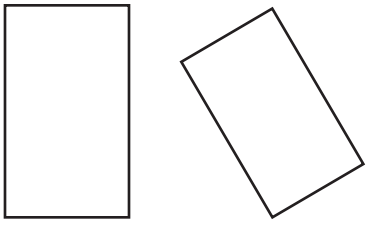
A



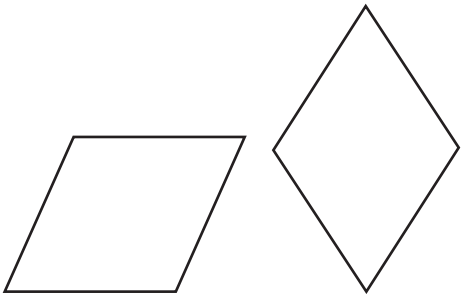
B



C



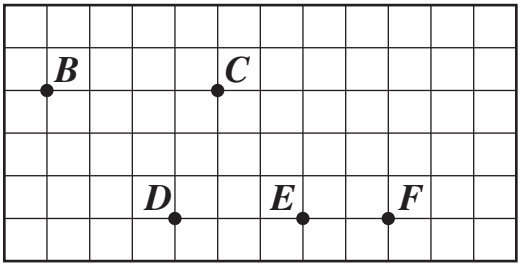
D



28 Which is the *best* estimate of the mass of a pencil?

F 10 grams
G 100 ounces
H 10 pounds
J 100 kilograms

29 Five points are shown on the grid below.



Which points lie on the same line?

A Points B, C, and D
B Points C, D, and E
C Points E, F, and C
D Points D, E, and F

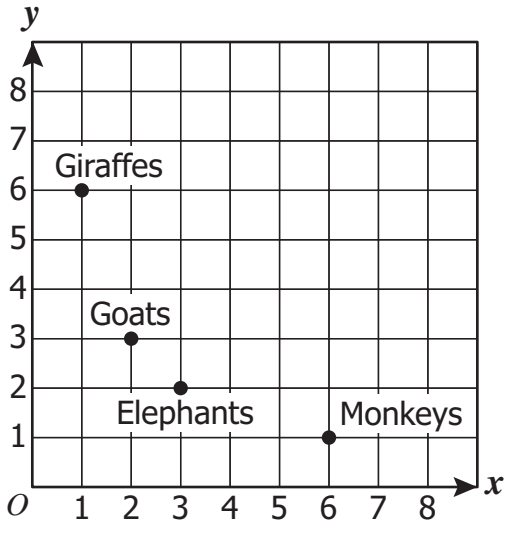
30 Vince's younger brother is 36 inches tall. Which of the following is equivalent to 36 inches?

F 1 yard
G 1 foot
H 12 feet
J 12 inches

31 Which statement about a ray is true?

A A ray has no endpoints.
B A ray has one endpoint.
C A ray has two endpoints.
D A ray continues in two directions.

32 The locations of four groups of animals at the city zoo are shown on the coordinate grid.



Which group of zoo animals appears to be located at (6,1) on the coordinate grid?

F Giraffes
G Goats
H Elephants
J Monkeys

GO ON

33 There are 10 cards in a bag as shown.

Margie will pull a card from the bag without looking. Which of the following statements is true?

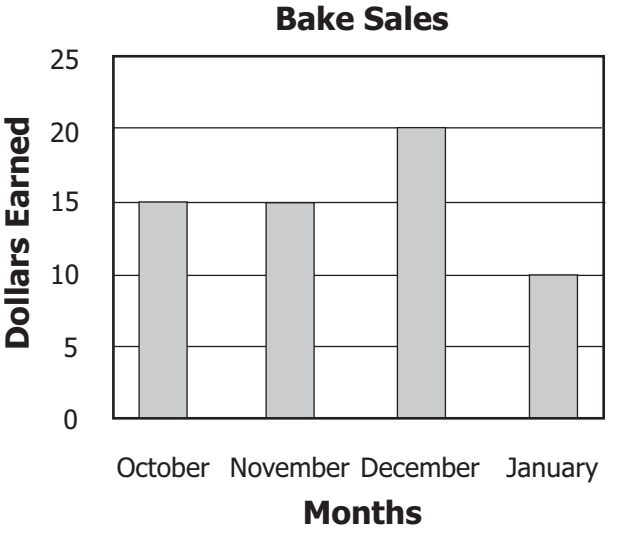
A It is likely that she will pull out a circle card.

B It is unlikely she will pull out a triangle card.

C It is certain she will pull out a square card.

D It is impossible to pull out a star card.

34 The graph shows the amount of money Pedro earned for his basketball team through bake sales in the months of October, November, December, and January.



There will be one more bake sale in February. Pedro wants to earn a total of $100 for his basketball team through bake sales. How much more money does Pedro need to earn from the bake sale in February to reach his goal of $100 ?

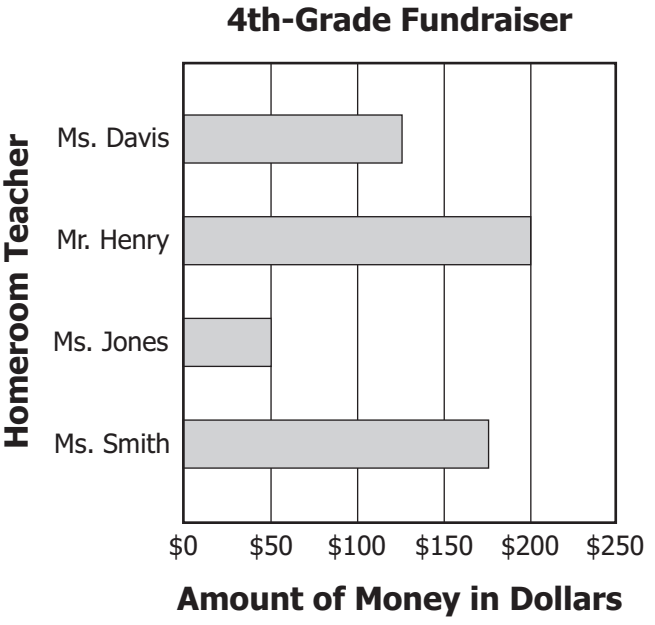
F $20

G $40

H $60

J $80

35 The graph shows the amount of money each homeroom class earned for the 4th-grade fundraiser.



Based on information in the graph, which statement is true?

A Ms. Jones' class earned the most of the four classes.

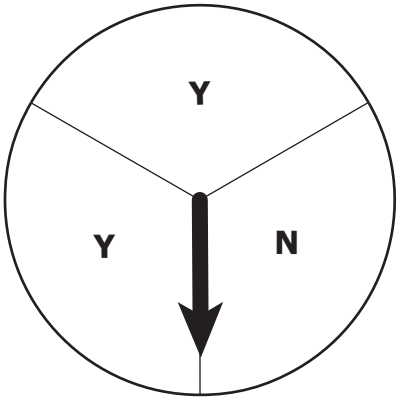
B Mr. Henry's class earned less than any other class.

C Ms. Davis' class earned more than twice what Ms. Jones' class earned.

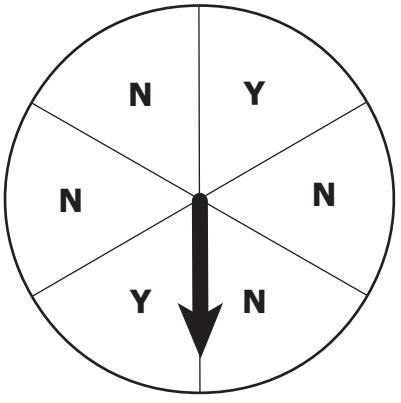
D Ms. Smith's class earned more than twice what Ms. Davis' class earned.

36 Which spinner has a $\frac{2}{6}$ probability of the arrow landing on a section labeled Y on the first spin?

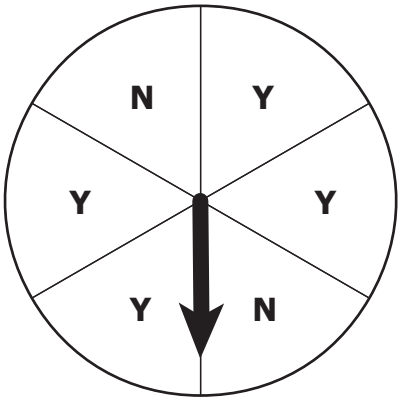
F



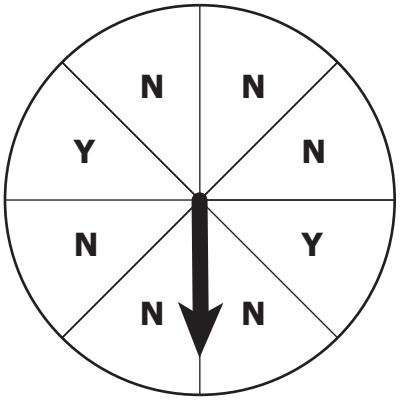
G



H

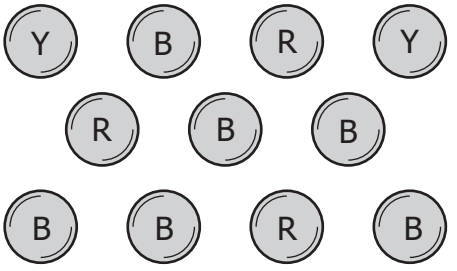


J



GO ON

37 Becky has a box with 11 buttons that are the same size and shape. There are 2 yellow, 3 red, and 6 blue buttons in the box.



Key: Y = yellow
R = red
B = blue

If she takes 1 button out of the box without looking, what is the probability that the button will be blue?

A $\frac{5}{6}$

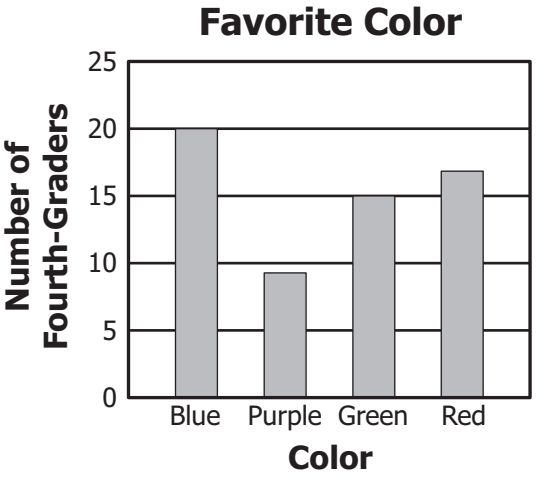
B $\frac{1}{6}$

C $\frac{5}{11}$

D $\frac{6}{11}$

GO ON

38 Iris asked all the fourth-graders in her school to name their favorite color. Each fourth-grader named one color. The bar graph below shows the results.



According to the data in the graph, which is *closest* to the total number of fourth-graders?

F 61
G 67
H 72
J 80

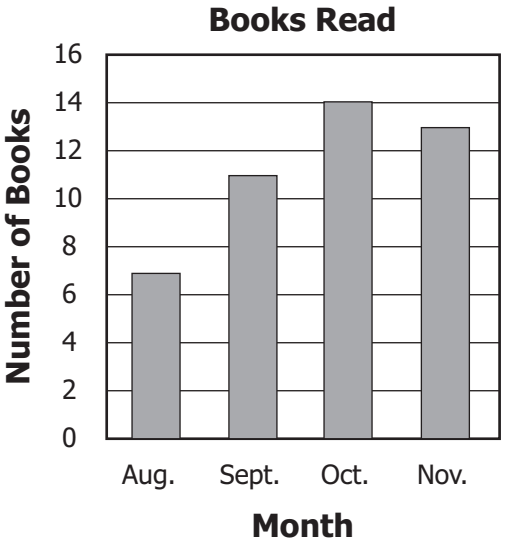
39 The list shows the number of each color of balloon Katie mixed up in a bag.

- **7 purple**
- **2 yellow**
- **1 white**

She will take 1 balloon from the bag without looking. Which *best* describes the likelihood that Katie will take a purple balloon on her first try?

A Certain
B Likely, but not certain
C Unlikely, but not impossible
D Impossible

40 This bar graph shows the numbers of books read by a student during each of four months.

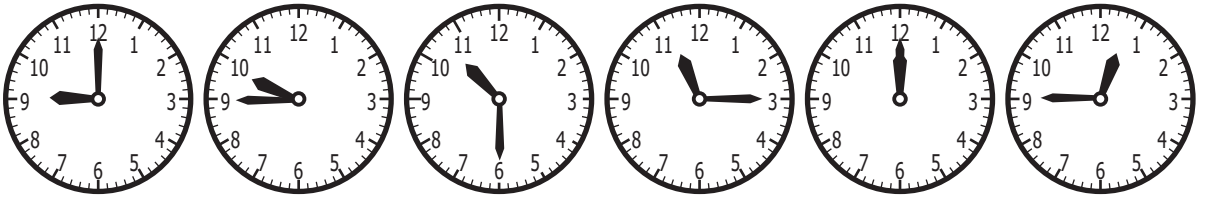


During which two months did the student read a total of exactly 20 books?

F August and September
G August and November
H September and October
J September and November

GO ON

41 These clocks show when the first 6 boat rides begin at an amusement park.



9:00 9:45 10:30 11:15 12:00 12:45

If the time between rides stays the same, which clock shows when the next boat ride will begin?

A

1:00

B

1:15

C

1:30

D

2:00

42 Which symbol goes in the box to make the statement true?

$$40 + 5 = 9 \square 5$$

F $+$
G $\times$
H $\div$
J $-$

43 Which statement is *not* true?

A $10 + (4 + 2) = (10 + 4) + 2$

B $(2 \times 5) \times 4 = (5 \times 4) \times 2$

C $21 + 5 = 5 + 21$

D $16 + 1 = 16 \times 1$

44 Wendy used an addition rule to make the following pattern.

13, 17, 21, 25, 29

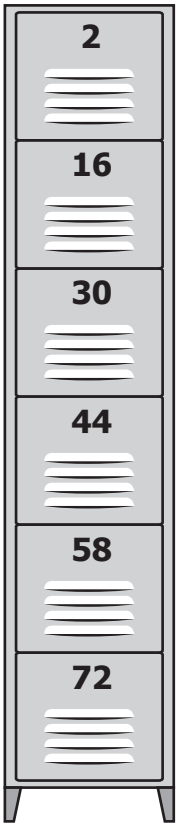
Which appears to use the same rule?

F 16, 19, 24, 28, 32
G 16, 20, 24, 28, 32
H 16, 20, 28, 32, 36
J 16, 21, 25, 29, 33

45 Which statement is true?

A $2 \times 3 = 6 + 2$
B $3 \times 4 = 8 + 3$
C $4 \times 2 = 5 + 3$
D $6 \times 3 = 10 + 9$

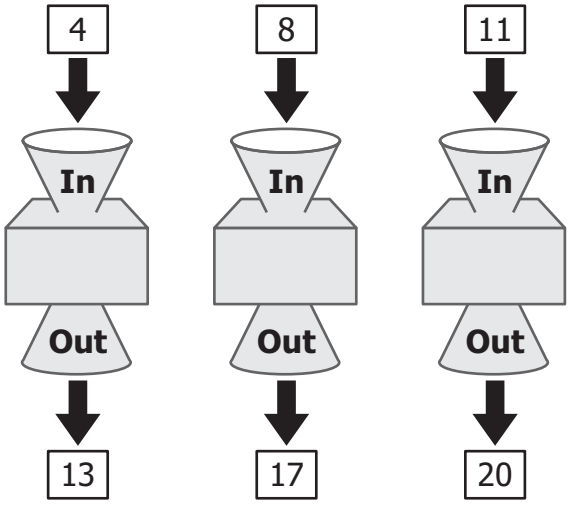
46 The numbers on these gym lockers form a pattern.



Which statement *best* describes the pattern of numbers on the lockers?

F The number is always 8 times the number just above it.
G The number is always 8 more than the number just above it.
H The number is always 14 times the number just above it.
J The number is always 14 more than the number just above it.

47 This number machine uses an addition rule to change numbers into different numbers. The picture shows what happened when three numbers went into and came out of the same number machine.



What number should come out if the number 15 goes into this machine?

A 22
B 23
C 24
D 25

48 Mrs. Hernandez wrote this pattern on the board.

65, 62, 59, 56, 53, 50, __, __, 41, 38

If this pattern remains the same, what numbers should Mrs. Hernandez write in the blanks?

F 49, 42
G 48, 46
H 47, 44
J 46, 42

49 Which is true?

A $(5+37)+63=5+(37+63)$

B $(5+37)+63=5\times(37+63)$

C $(5+37)+63=(5\times63)+(37\times63)$

D $(5+37)+63=(5+37)+(37+63)$

50 What number should go in the box to make the statement true?

$$\mathbf{14+(17+12)=(14+\square)+12}$$

F 10

G 14

H 17

J 21

STOP