VIRGINIA STANDARDS OF LEARNING

Spring 2009 Released Test

GRADE 3 MATHEMATICS

Form M0119, CORE 1

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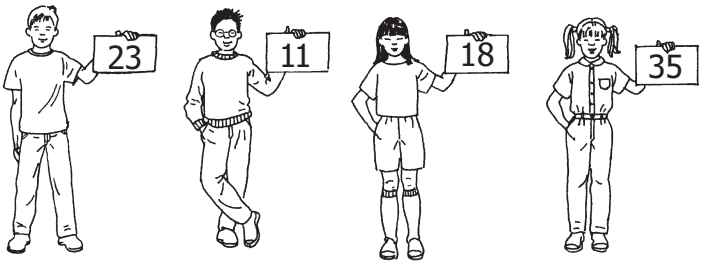
Directions

Read each question and choose the best answer.

SAMPLE



Who is holding a card with an even number on it?

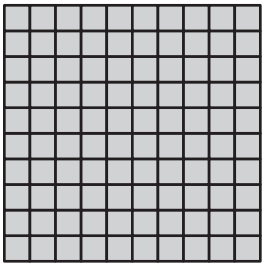
A David
B Greg
C Keiko
D Betsy

1 Which number is LESS THAN 8,243 ?

A 8,541
B 9,130
C 8,029
D 9,042

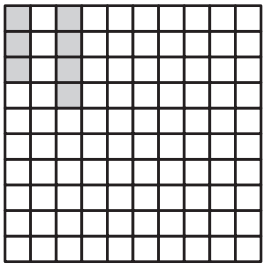
GO ON

2 This model is shaded to represent the number 1.

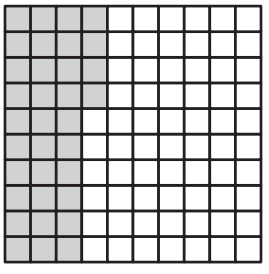


Which model is shaded to represent 0.34 ?

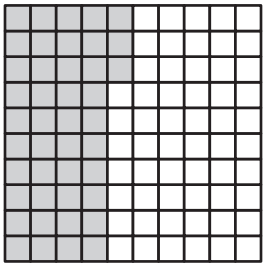
F



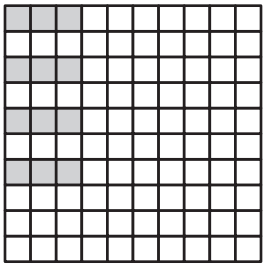
G



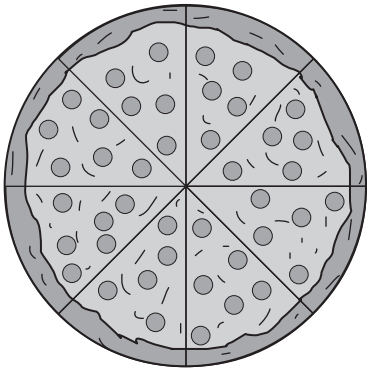
H



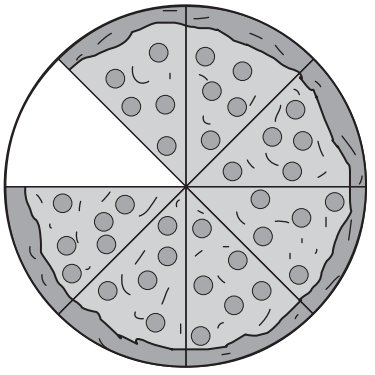
J



3 This is a whole pizza.



Carol ate 1 piece of pizza.



What fraction of the pizza did Carol eat?

A $\frac{7}{8}$

B $\frac{6}{7}$

C $\frac{1}{7}$

D $\frac{1}{8}$

4 Hat Mountain is a volcanic peak in California that rises to a height of 7,693 feet. What is 7,693 rounded to the nearest thousand?

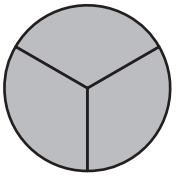
F 8,000
G 7,700
H 7,000
J 6,000

5 What is the value of the 4 in this number?

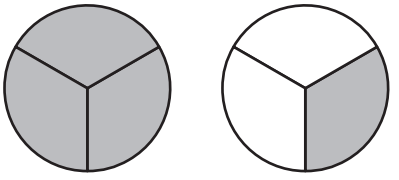
784,312

A Four thousand
B Forty thousand
C Four hundred thousand
D Forty hundred thousand

6 This model is shaded to show 1 whole.



Look at the shaded parts of the model below. What mixed number is shown?



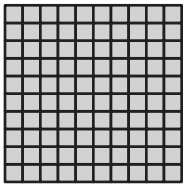
F $\frac{2}{4}$

G $1\frac{1}{3}$

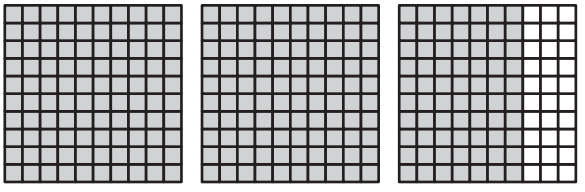
H $\frac{4}{6}$

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

7 This model is shaded to represent 1 whole.



Which number is represented by the shaded part of the following model?



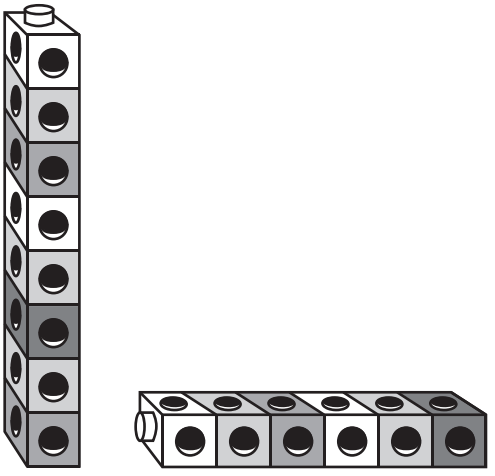
A 2.70

B 2.07

C 0.72

D 0.27

8 Ramon had two groups of snap cubes built like the ones shown.



He wrote $8+6=14$ to describe the snap cubes. Which number sentence is NOT related to $8+6=14$?

F $8-6=2$

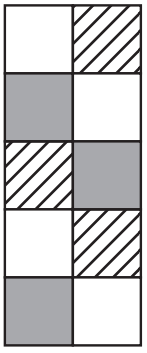
G $6+8=14$

H $14-8=6$

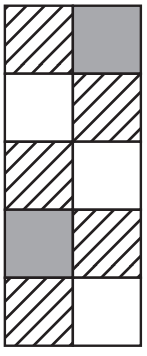
J $14-6=8$

9 Jacob made a design with stripes on $\frac{3}{10}$ of the squares. Which design could Jacob have made?

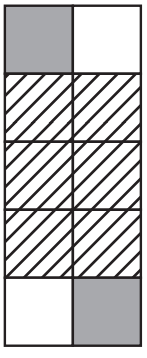
A



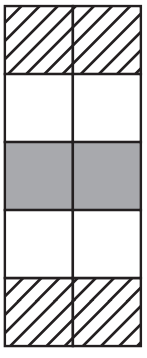
B



C

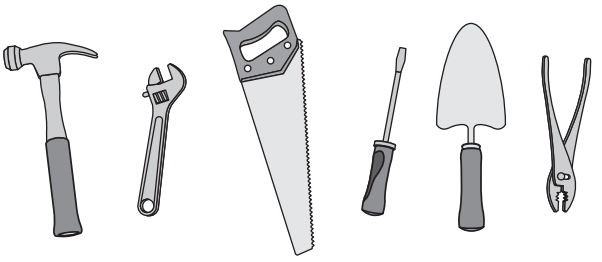


D

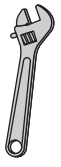


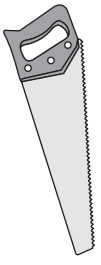
GO ON

10 The picture shows the tools hanging on the wall in Mrs. Jenson's garage.

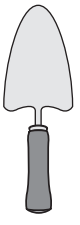


Which tool is second from the right?

F 

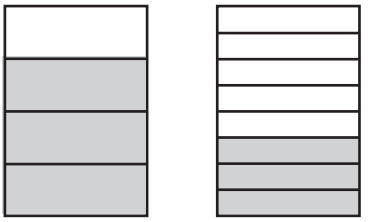
G 

H

J 

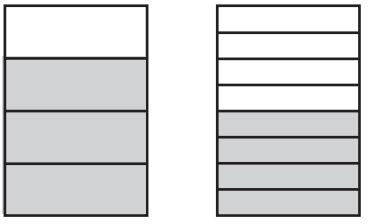
11 Each figure below is shaded to represent a fraction. Which statement is true?

A



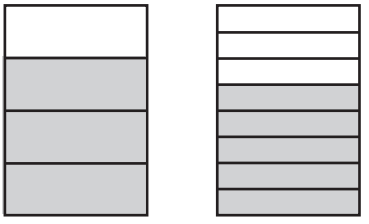
$\frac{3}{4} < \frac{3}{8}$

B



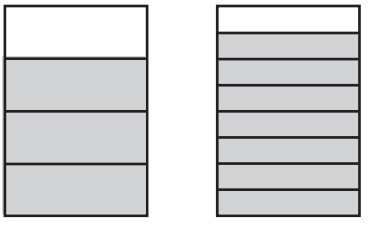
$\frac{3}{4} > \frac{4}{8}$

C



$\frac{3}{4} < \frac{5}{8}$

D



$\frac{3}{4} > \frac{7}{8}$

12 Which of the following is a true statement?

F $1{,}207 < 1{,}346$

G $1{,}346 < 893$

H $786 > 893$

J $677 > 786$

13 In one year, five cows can produce about one hundred sixty-four thousand, two hundred thirty glasses of milk. Which of the following represents this number?

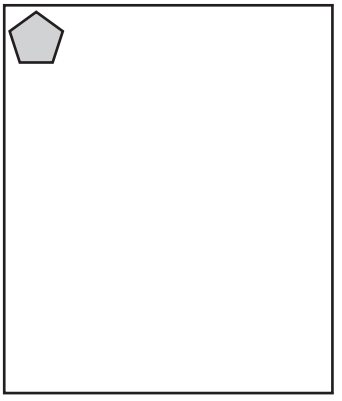
A 164,213

B 164,230

C 1,604,213

D 1,604,230

14 This figure represents one sticker on a page.



Which is the greatest number of stickers that will BEST fit on this page without touching each other?

F 3

G 30

H 300

J 3,000

15 During a U.S. election in 1824, the people of Virginia voted for one out of four men.

Virginia Votes in 1824 U.S. Presidential Election

Candidate	Number of Votes
John Q. Adams	3,419
Andrew Jackson	2,975
Henry Clay	418
William H. Crawford	8,558

According to the table, how many more votes did William H. Crawford receive than John Q. Adams?

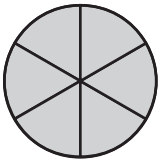
A 11,977
B 11,967
C 5,141
D 5,139

16 $7 \times 8 =$

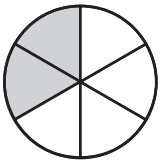
F 15
G 49
H 54
J 56

GO ON

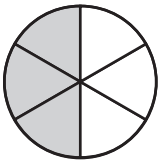
17 This model is shaded to show 1 whole.



Below are two models. Each model is shaded to show a fraction.



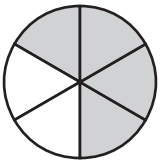
Model 1



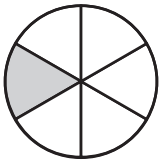
Model 2

The fractions are added. Which model is shaded to show the sum?

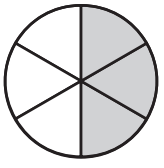
A



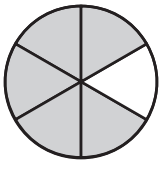
B



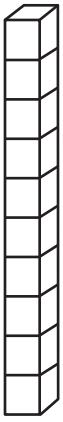
C



D

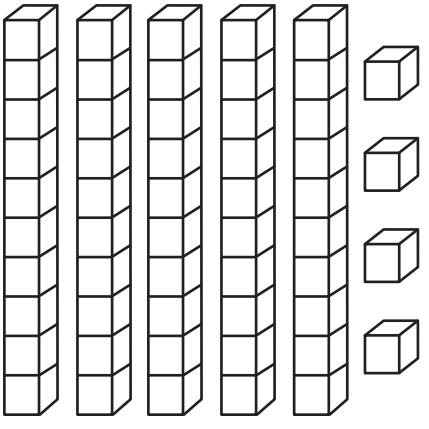


18 This is one.

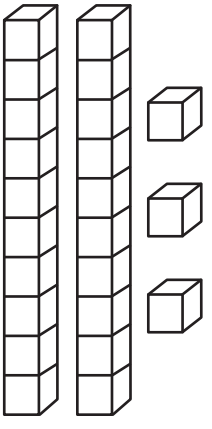


This is one-tenth.

What is $5.4 + 2.3$ as shown?



5.4



2.3

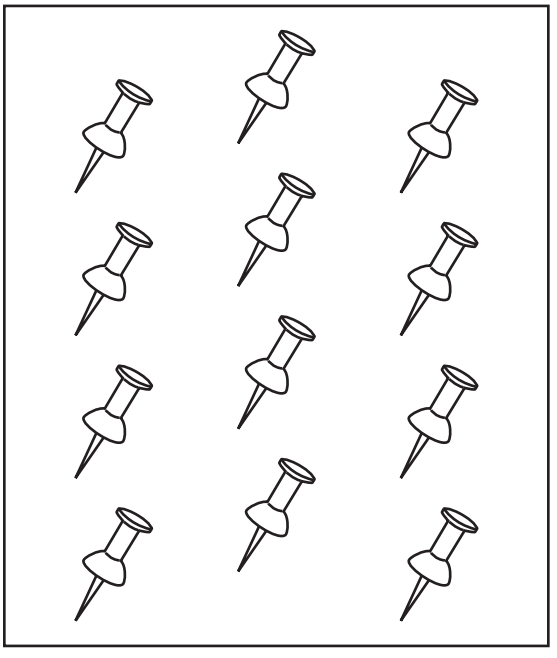
F 3.1
G 7.3
H 7.7
J 8.7

19 What number makes this number sentence true?

$$\square \times 4 = 36$$

A 8
B 9
C 32
D 40

20 Martina always uses 4 tacks to hang a picture on the art wall in her classroom.



Exactly how many pictures can she hang using the 12 tacks shown?

F 3
G 4
H 6
J 12

GO ON

21 $12.8 + 1.9 =$

A 3.18
B 13.7
C 14.7
D 31.8

22 Steve bought a package with 5 sheets of stickers in it. Each sheet had 32 stickers. What was the total number of stickers Steve bought?

F 37
G 160
H 180
J 1,510

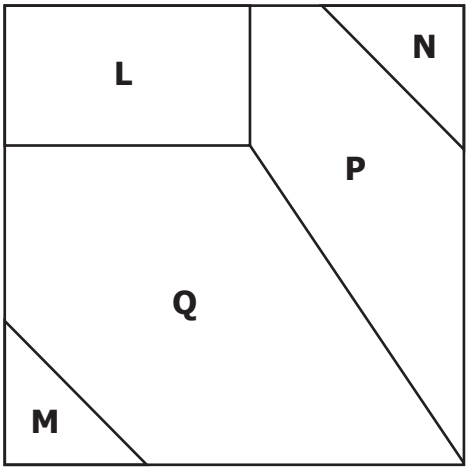
23 On Monday, 497 donuts were sold at a bakery. On Tuesday, 354 donuts were sold. What is the total number of donuts sold at the bakery on those two days?

A 43
B 143
C 741
D 851

24 There were 12 puppies on a farm. If 8 of the puppies were brown and the rest were spotted, how many of the 12 puppies were spotted?

F 20
G 16
H 8
J 4

25 Which two shapes in this picture appear to be congruent?



A L and M
B M and P
C Q and N
D M and N

GO ON

26 Look at the table.

Coins in Mike's Pocket

Type of Coin	Number
Quarter	4
Dime	4
Nickel	3
Penny	3

What is the total value of the coins in Mike's pocket?

F $1.78
G $1.73
H $1.58
J $1.38

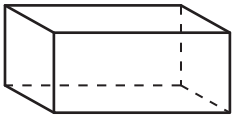
27 How many minutes are equal to two hours?

A 20 minutes
B 100 minutes
C 120 minutes
D 200 minutes

28 Which is CLOSEST to the length of the spider pictured?

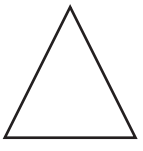
F 1 centimeter
G 1.5 centimeters
H 2 centimeters
J 2.5 centimeters

29 Which figure has EXACTLY three corners and three sides?

A 

B

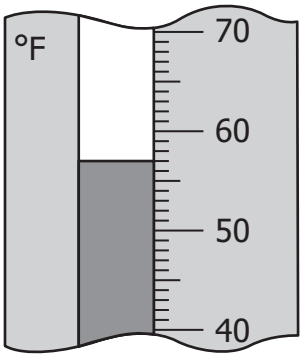
C

D 

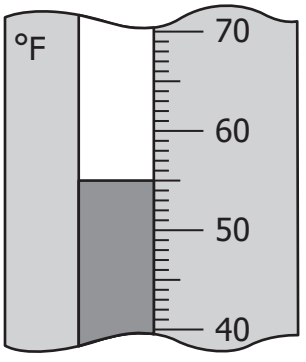
GO ON

30 Which thermometer pictured shows a temperature closest to 57° F?

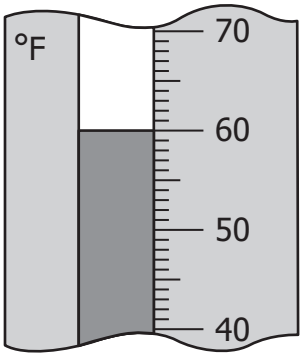
F



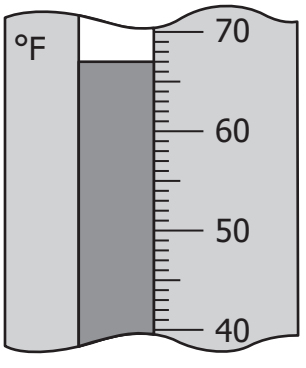
G



H



J



31 Miss Jensen ordered a sweater on May 6. The sweater arrived exactly 10 days later.

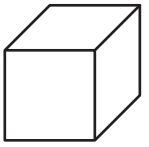
May

Sun.	Mon.	Tue.	Wed.	Thu.	Fri.	Sat.
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

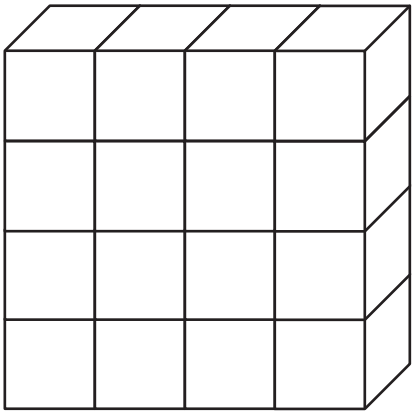
On what date did the sweater arrive?

A May 4
B May 10
C May 15
D May 16

32 This is 1 block.



How many of these blocks are needed to make the stack shown here?



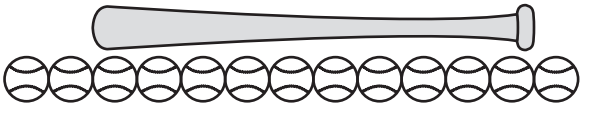
F 16
G 20
H 24
J 25

GO ON

33 Which is CLOSEST to the time shown on the clock?

A 4:05
B 4:25
C 5:20
D 5:40

34 The picture shows how Jim used baseballs to measure the length of his bat.

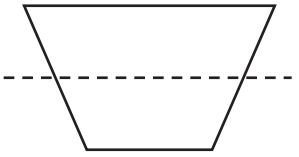


Which is CLOSEST to the length of the bat?

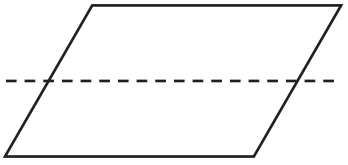
F 9 baseballs
G 10 baseballs
H 11 baseballs
J 13 baseballs

35 Which figure shows a line of symmetry?

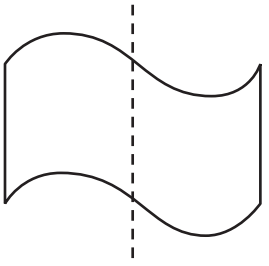
A



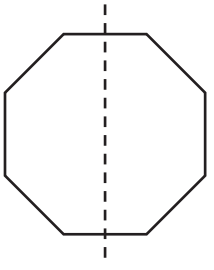
B



C



D



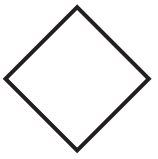
GO ON

36 Which shape appears to be a square?

F

G

H

J 

GO ON

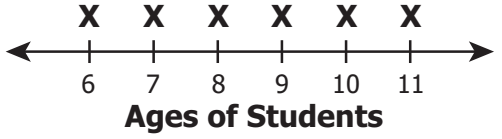
37 This list shows the ages of the 12 students in the school science club.

7, 7, 8, 10, 6, 6, 8, 11, 8, 9, 6, 11

Which line plot shows the number of students at each age?

A

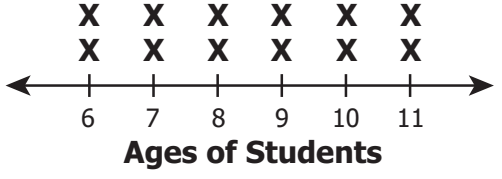
Students in Science Club



Each **X** represents 1 student.

B

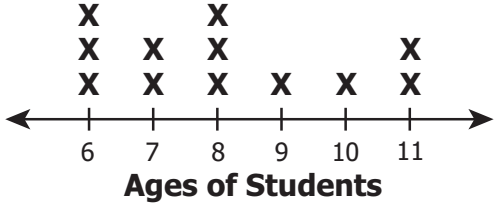
Students in Science Club



Each **X** represents 1 student.

C

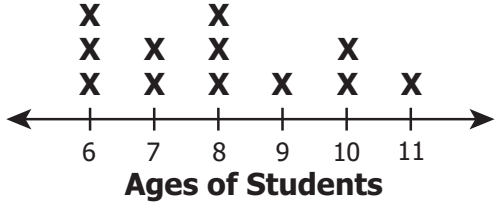
Students in Science Club



Each **X** represents 1 student.

D

Students in Science Club



Each **X** represents 1 student.

38 Each student in Mrs. Cook's class recorded one tally to show the type of drink each student had with lunch. SOME of the results are shown.

Lunch Drinks

Skim Milk	𝍸 I
Chocolate Milk	𝍸 III
Juice	IIII
Water	?

There are 23 students in Mrs. Cook's class. Which correctly shows the number of students who had water with lunch?

F

Water	𝍸 I

G

Water	𝍸

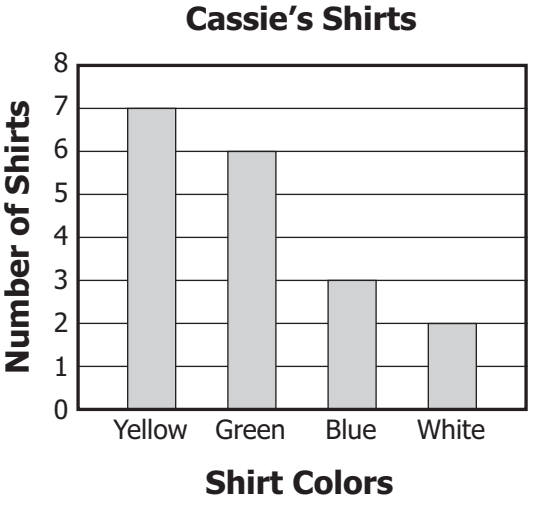
H

Water	IIII

J

Water	III

39 The graph shows the number of different colored shirts in Cassie's closet.



According to the graph, how many shirts are there in Cassie's closet?

A 18

B 13

C 9

D 7

GO ON

40 The table shows the number of each color of counters in a box. Each counter is the same size and shape.

Counters in a Box

Color	Number
Red	15
Blue	14
Green	15
Orange	12

If Tim closes his eyes and pulls 1 counter from the box, which BEST describes the chance the counter will be yellow?

F Certain

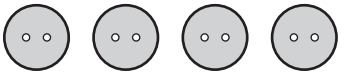
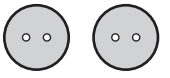
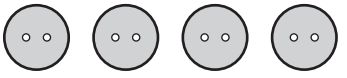
G Likely, but not certain

H Unlikely, but not impossible

J Impossible

41 The pictograph below shows the number of each color of button Elsa used to decorate a box.

Buttons Used on Box

Color	Number Used
Blue	
Green	
Pink	
Purple	

Key: Each **represents 5 buttons.**

Based on the data in the graph, what was the total number of blue buttons Elsa used?

A 4
B 13
C 20
D 65

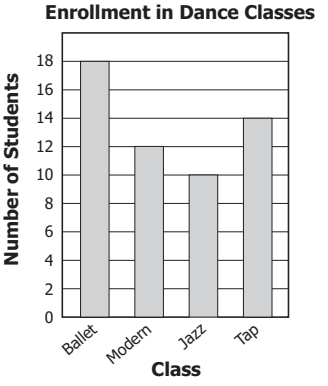
42 The table shows the number of students enrolled in each dance class.

Enrollment in Dance Classes

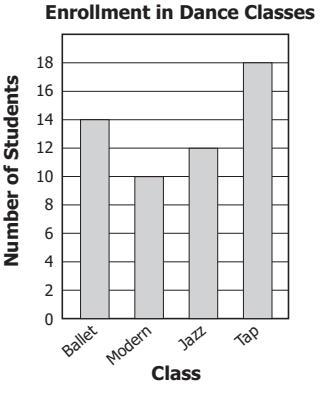
Class	Students
Ballet	18
Modern	12
Jazz	10
Tap	14

Which graph shows the same information as the table?

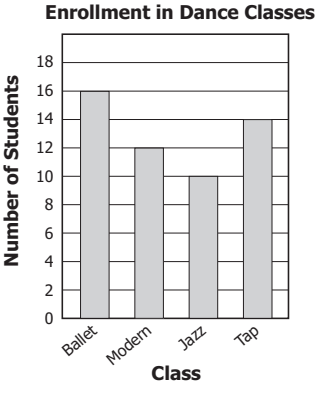
F



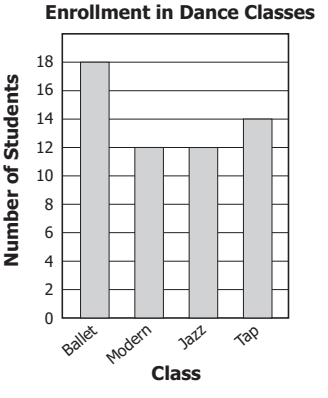
G



H



J



GO ON

43 This table shows the numbers of pencils with different designs that Brandon's teacher has in a prize bag.

Prize Bag Pencils

Design	Number of Pencils
Frog	70
Star	130
Airplane	200
Basketball	90

If Brandon picks one pencil from the prize bag without looking, which design will the pencil MOST likely have on it?

A Frog
B Star
C Airplane
D Basketball

44 Which number sentence is true?

F $7 + 4 = 8 + 3$

G $7 + 4 = 11 + 3$

H $8 \cdot 3 = 8 + 3$

J $8 \cdot 3 = 3 \cdot 7$

45 What number belongs in the box to make this number sentence true?

$$\mathbf{15 - \square = 7}$$

A 23

B 22

C 8

D 7

46 Janet made this pattern by repeating the first five shapes in the same order as shown.

The pattern continues in the same way. What will be the next shape in Janet's pattern?

F

G

H

J

47 Mrs. Parker wrote the following number pattern on the chalkboard.

7	12	17	22	27	

If this pattern continues in the same way, what number should go in the empty box?

A 28
B 31
C 32
D 37

GO ON

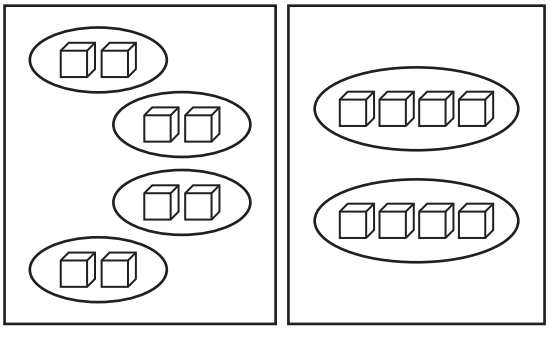
48 The table shows the costs for stickers.

Number of Stickers	Total Cost
4	$1.00
8	$2.00
12	$3.00
16	$4.00
?	$5.00

The cost of stickers continues to increase in the same way. What is the greatest number of stickers that can be bought with $5.00 ?

F 16
G 18
H 20
J 22

49 Marta showed a basic fact by grouping 8 cubes in 2 different ways.



Which number sentence represents Marta's two basic facts?

A $4 \times 2 = 2 \times 4$
B $4 \times 2 = 2 + 4$
C $2 + 4 = 4 \times 4$
D $2 + 4 = 4 + 4$

50 Jake's baseball team has bats made of wood and bats made of metal. Of the 14 total bats, 8 are made of wood and the rest are made of metal.

$$8 + \square = 14$$

How many bats are made of metal?

F 8

G 7

H 6

J 5

STOP

Answer Key-3070 M0119

Test Sequence Number	Correct Answer	Reporting Category	Reporting Category Description
1	C	001	Number and Number Sense
2	G	001	Number and Number Sense
3	D	001	Number and Number Sense
4	F	001	Number and Number Sense
5	A	001	Number and Number Sense
6	G	001	Number and Number Sense
7	A	001	Number and Number Sense
8	F	001	Number and Number Sense
9	A	001	Number and Number Sense
10	J	001	Number and Number Sense
11	B	001	Number and Number Sense
12	F	001	Number and Number Sense
13	B	001	Number and Number Sense
14	G	002	Computation and Estimation
15	D	002	Computation and Estimation
16	J	002	Computation and Estimation
17	D	002	Computation and Estimation
18	H	002	Computation and Estimation
19	B	002	Computation and Estimation
20	F	002	Computation and Estimation
21	C	002	Computation and Estimation
22	G	002	Computation and Estimation
23	D	002	Computation and Estimation
24	J	002	Computation and Estimation
25	D	003	Measurement and Geometry
26	H	003	Measurement and Geometry
27	C	003	Measurement and Geometry
28	F	003	Measurement and Geometry
29	D	003	Measurement and Geometry
30	F	003	Measurement and Geometry
31	D	003	Measurement and Geometry
32	F	003	Measurement and Geometry
33	B	003	Measurement and Geometry
34	G	003	Measurement and Geometry
35	D	003	Measurement and Geometry
36	J	003	Measurement and Geometry
37	C	004	Probability and Statistics
38	G	004	Probability and Statistics
39	A	004	Probability and Statistics
40	J	004	Probability and Statistics
41	C	004	Probability and Statistics
42	F	004	Probability and Statistics
43	C	004	Probability and Statistics
44	F	005	Patterns, Functions, and Algebra
45	C	005	Patterns, Functions, and Algebra
46	G	005	Patterns, Functions, and Algebra
47	C	005	Patterns, Functions, and Algebra
48	H	005	Patterns, Functions, and Algebra
49	A	005	Patterns, Functions, and Algebra
50	H	005	Patterns, Functions, and Algebra

Grade 3 Math, Core 1

If you get this many items correct:		Then your converted scale score is:
0		0
1		72
2		117
3		145
4		164
5		180
6		194
7		205
8		216
9		225
10		234
11		242
12		250
13		257
14		264
15		271
16		278
17		284
18		290
19		296
20		302
21		308
22		314
23		319
24		325
25		331
26		336
27		342
28		348
29		354
30		359
31		365
32		371
33		378
34		384
35		391
36		397
37		**404**
38		412
39		420
40		428
41		437
42		447
43		457
44		469
45		483
46		499
47		**519**
48		546
49		592
50		600