VIRGINIA STANDARDS OF LEARNING

Spring 2008 Released Test

GRADE 4 MATHEMATICS

Form M0118, CORE 1

Property of the Virginia Department of Education

Directions

Read each question and choose the best answer. Then fill in the circle on your answer document for the answer you have chosen.

SAMPLE

Which number has a 9 in the ones place?

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

1

$$\begin{array}{r} \mathbf{843{,}432} \\ -\ \mathbf{17{,}814} \\ \hline \end{array}$$

A 825,422
B 825,618
C 834,418
D 834,422

2 Which product is between 550 and 600 ?

F 48×12
G 56×12
H 45×12
J 52×12

3 $\frac{1}{4} + \frac{3}{8} =$

A $\frac{1}{8}$

B $\frac{3}{12}$

C $\frac{4}{12}$

D $\frac{5}{8}$

4 Sam spent $3.29 for an ice cream sundae and $0.98 for a drink. What is the total amount Sam spent for the ice cream sundae and drink?

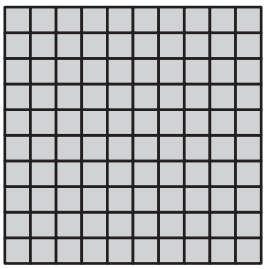
F $3.27

G $4.17

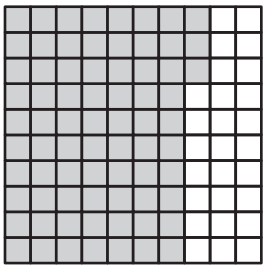
H $4.27

J $4.37

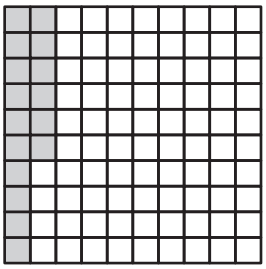
5 The model below is shaded to represent the number 1.



Each of the following models is shaded to represent a decimal number.



Model 1



Model 2

If the two decimals are subtracted, what is the difference?

A 0.057
B 0.57
C 5.7
D 57.0

6 $34.6 - 2.82 =$

F 16.4
G 31.78
H 33.22
J 33.78

7 $741 \div 3 =$

A 210 R1
B 240 R1
C 247
D 248

8 Which *best* describes the difference 3,021 − 987 ?

F Closer to 1,000 than 2,000
G Closer to 2,000 than 3,000
H Closer to 4,000 than 3,000
J Closer to 5,000 than 4,000

9 $520 \div 5 =$

A 14
B 104
C 114
D 140

10
$$\begin{array}{r} 65 \\ \times 28 \\ \hline \end{array}$$

F 650
G 660
H 1,810
J 1,820

11 $3\overline{)348}$

A 112
B 115 R1
C 116
D 129 R2

GO ON

12 Which 2 factors have a product of 925 ?

F 23×45

G 30×35

H 25×37

J 25×35

Do not turn the page until you are told.

STOP

13 What is 24,539 rounded to the nearest thousand?

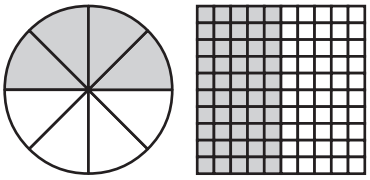
A 25,000
B 24,500
C 24,000
D 20,000

14 During a race, runners complete twenty-six and two-tenths miles. Which of the following shows this number written in standard form?

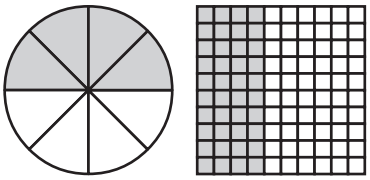
F 206.2
G 26.2
H 26.02
J 20.62

15 Which of the following shows a fraction model and a decimal model that both represent the same value?

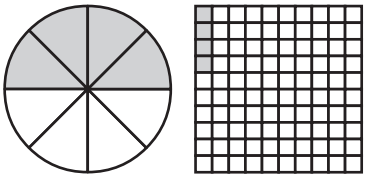
A



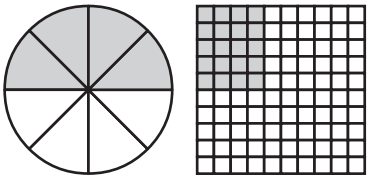
B



C

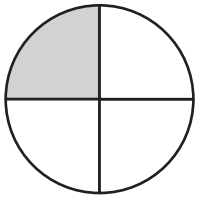


D

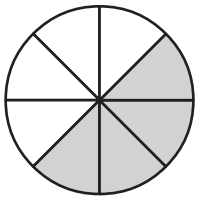


16 Which model is shaded to represent a fraction with value *greater than* $\frac{2}{3}$?

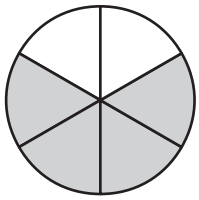
F



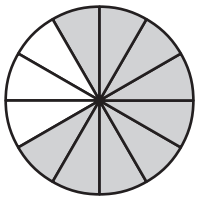
G



H



J



17 Which is true?

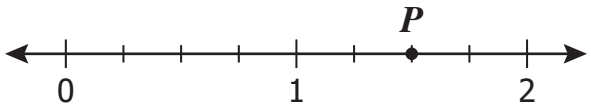
A $245{,}963 < 254{,}936$

B $245{,}963 > 254{,}963$

C $245{,}963 < 235{,}963$

D $245{,}963 > 263{,}945$

18 **Point P is located at $1\frac{1}{2}$ on the number line below.**



Which of the following is another name for the location of point P ?

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

G $1\frac{3}{5}$

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

J $1\frac{3}{8}$

19 **Which is true?**

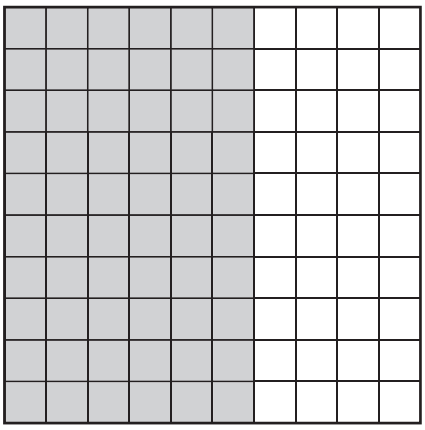
A $0.234 > 0.233$

B $0.234 > 0.235$

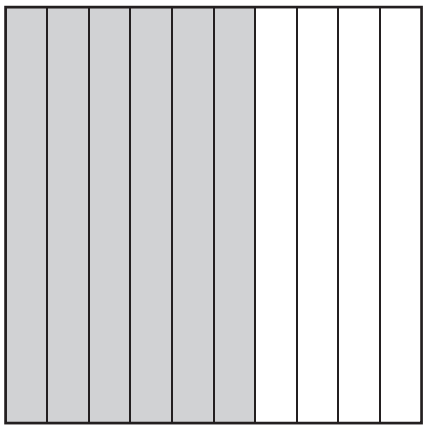
C $0.234 > 0.241$

D $0.234 > 0.242$

20 The shaded sections of these models represent two decimal numbers.



Model 1



Model 2

Which statement is true?

F $0.40 > 0.4$

G $0.40 = 4.0$

H $0.60 > 0.6$

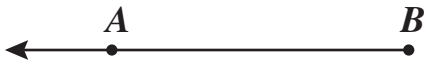
J $0.60 = 0.6$

21 Which of the following shows *only* line segment AB ?

A

B

C



D

22 Which of the following is *closest* to the height of the bookmark shown?

F 3 inches

G $3\frac{1}{4}$ inches

H $3\frac{3}{4}$ inches

J 4 inches

23 Mr. Guzman is making a bookcase. Each shelf will be 1 yard long. A length of 1 yard is about the same as —

A 10 millimeters

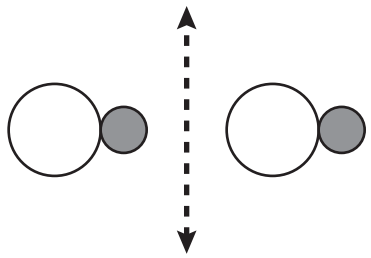
B 10 centimeters

C 1 kilometer

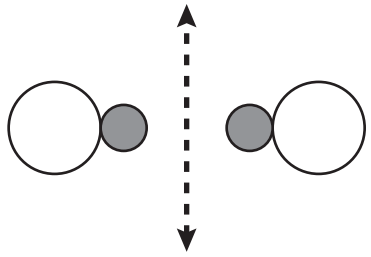
D 1 meter

24 Which shows only a translation (slide) of the figure across the dashed line?

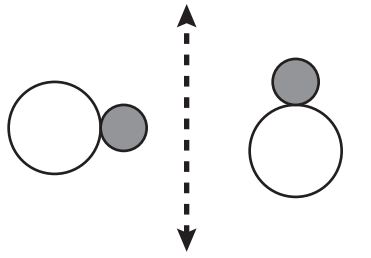
F



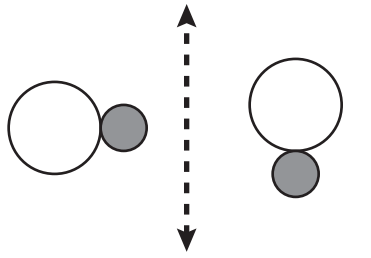
G



H



J



GO ON

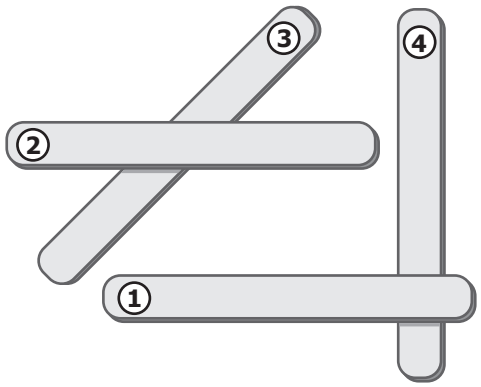
25 Joe ran a 100-meter race. How many *centimeters* are equal to 100 meters?

A 10
B 100
C 1,000
D 10,000

26 What do a ray and a line segment have in common?

F Both have two endpoints.
G Both are part of a line.
H Both go on and on infinitely.
J Both include only 10 points.

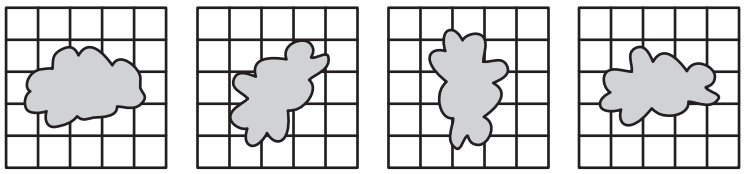
27 Troy dropped some craft sticks on the floor as shown in the picture.



Which two craft sticks are *best* described as intersecting but *not* perpendicular?

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

28 Aaron drew these clouds.



Cloud 1 **Cloud 2** **Cloud 3** **Cloud 4**

Which cloud does *not* appear to be congruent to the other three?

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

29 Mr. Zander bought 1 pint of chocolate milk. Which of the following is equivalent to 1 pint?

A $\frac{1}{2}$ cup

B 1 quart

C 2 cups

D $\frac{1}{2}$ gallon

30 Marcy's scrapbook is 12 inches wide. Which of the following is equivalent to 12 inches?

F 1 yard

G 1 foot

H 1 centimeter

J 1 meter

31 Fran bought an 8-ounce bag of candy. Which measurement is equivalent to 8 ounces?

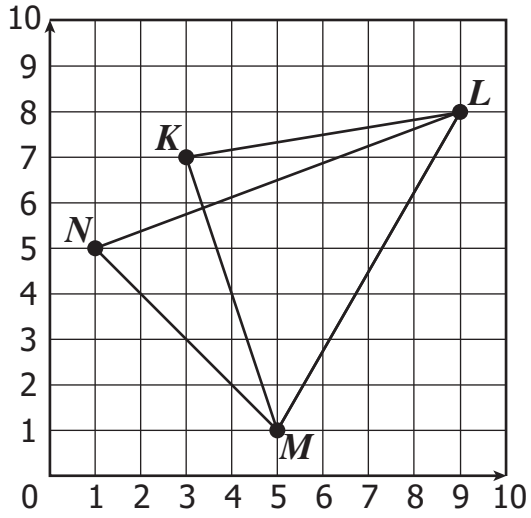
A $\frac{1}{2}$ pound

B 1 pound

C 2 pounds

D $2\frac{1}{2}$ pounds

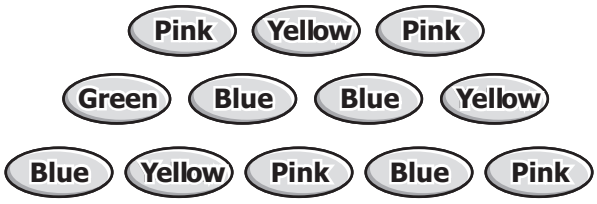
32 Which ordered pair *best* represents point L ?



F (3, 7)
G (7, 3)
H (8, 9)
J (9, 8)

GO ON

33 The picture shows all the candy that will be placed in a machine. Each time the handle on the machine is pulled, 1 candy comes out.



Alexa will pull the handle on the machine. Which color of candy is *least likely* to come out?

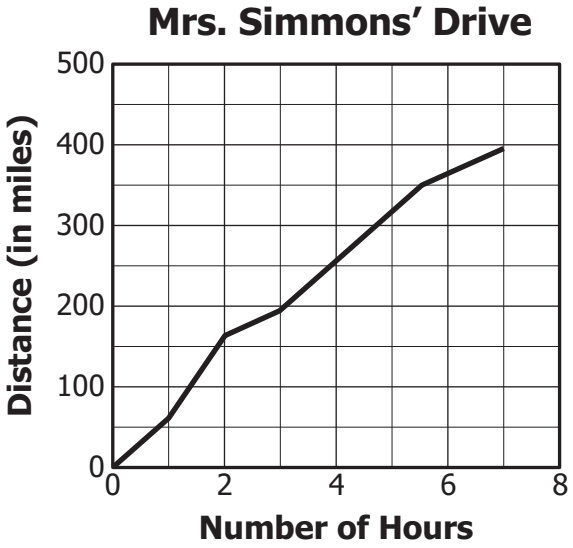
A Green

B Yellow

C Pink

D Blue

34 Mrs. Simmons drove 400 miles to visit a friend. The line graph below shows how the distance she traveled increased over time.



Which of the following is *closest* to the total distance Mrs. Simmons drove in the first 2 hours?

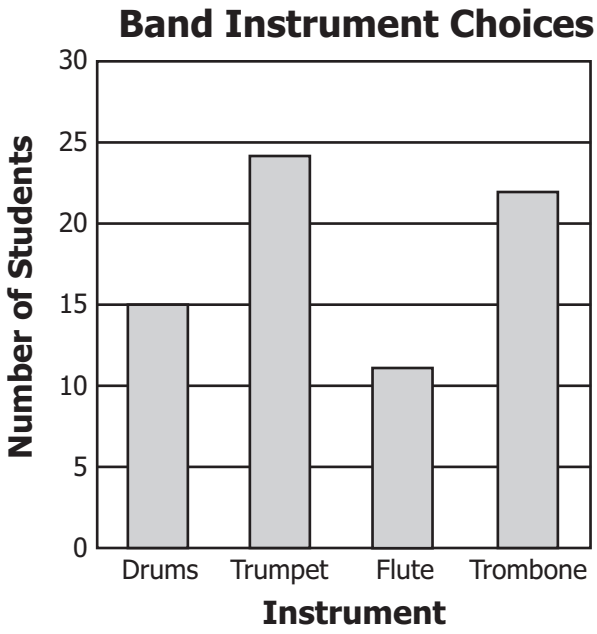
F 110 miles

G 125 miles

H 140 miles

J 160 miles

35 A group of students was asked to name the one band instrument they would most like to play. The graph below shows the results.

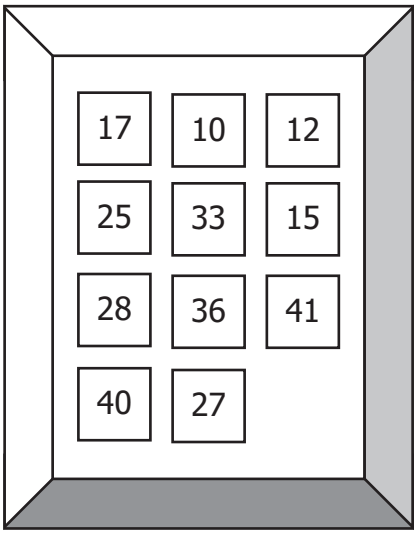


Based on the data in the graph, which of the following is *closest* to the total number of students in the group?

A 75
B 67
C 62
D 59

GO ON

36 A box contains 11 number tiles that are the same shape and size as shown.



If Jason picks one tile from the box without looking, what is the probability that the number on the tile will end with 0 or 5 ?

F $\frac{1}{11}$

G $\frac{1}{4}$

H $\frac{4}{11}$

J $\frac{4}{7}$

37 The table shows the number of coupons a store mailed and the value of each.

Store Coupons Mailed Out

Value of Coupon	Number Mailed Out
$25	4,950
$50	40
$100	10

Mr. James will receive one of the coupons. Which *best* describes the chance that it will be a $100 coupon?

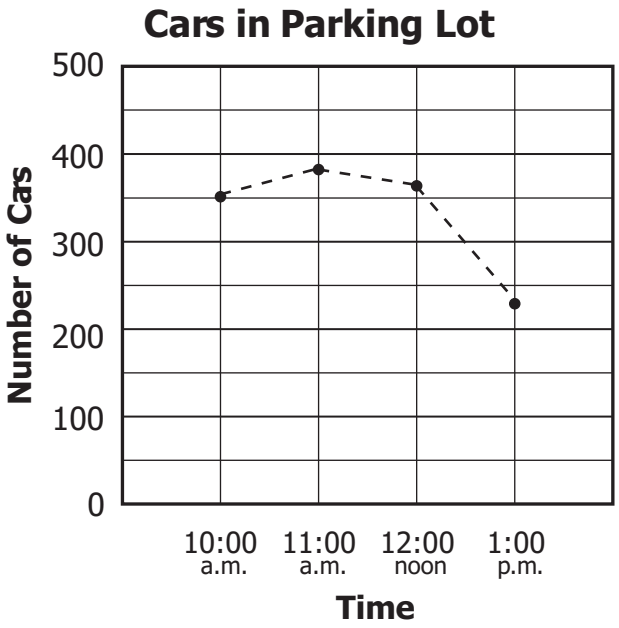
A Certain

B Likely, but not certain

C Unlikely, but not impossible

D Impossible

38 The line graph shows the number of cars in a parking lot over a three-hour period.



According to data from the graph, which is *closest* to the number of cars that were in the parking lot at 1 p.m.?

F 202

G 230

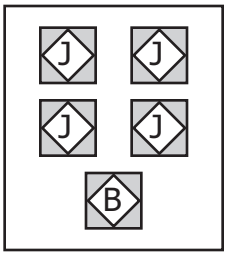
H 275

J 360

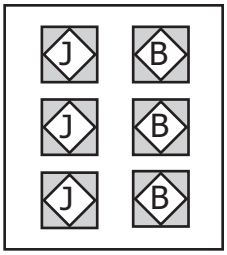
GO ON

39 Keisha will pick one tile from a box without looking. From which of the following boxes is she *certain* to pick a tile with a "J" on it?

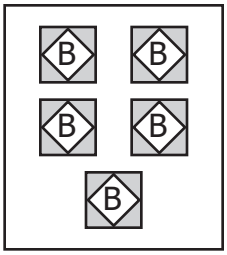
A



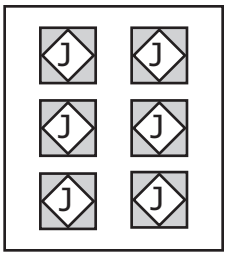
B



C

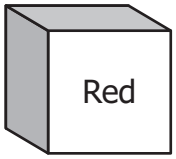
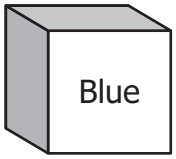


D



40 The table below shows the cubes Alex found in a box in the math closet.

Cubes in a Box

Color	Number of Cubes
 Red	5
 Blue	7

What is the probability the first cube Alex takes from the box without looking will be a blue cube?

F $\frac{5}{12}$

G $\frac{7}{12}$

H $\frac{5}{7}$

J $\frac{7}{5}$

41 Which is true?

A $9 - 18 = 18 - 9$

B $9 \div 18 = 18 \div 9$

C $9 + 18 = 18 + 9$

D $18 + 9 = 18 \times 9$

42 For science class, Mr. Jennings is ordering kits that contain caterpillars that will change into butterflies. The table below shows the total number of kits he must order to get different numbers of caterpillars.

Caterpillar Kits

Number of Kits	3	4	5	6
Total Number of Caterpillars	18	24	30	36

Based on the data in the table, what will be the total number of caterpillars in 8 kits?

F 38

G 40

H 42

J 48

43 Which is true?

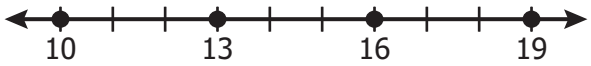
A $6 \times 8 = 8 + 6$

B $6 \times 8 = 4 \times 12$

C $6 \times 8 = 48 + 6$

D $6 \times 8 = 14 \times 8$

44 Erik is using the rule "add 3" to mark points in a pattern on the following number line.



Using the same rule, what will be the next number Erik marks with a point?

F 21

G 22

H 23

J 24

45 Which is true?

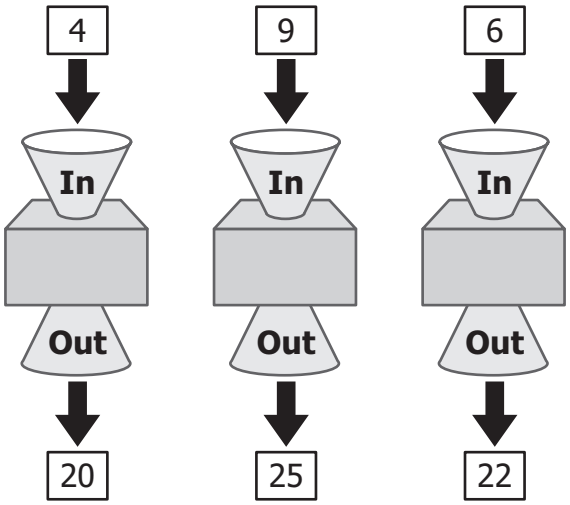
A $6 \times 3 = 2 \times 9$

B $6 \times 3 = 9 \times 1$

C $6 \times 3 = 3 \times 2 \times 2$

D $6 \times 3 = 6 \times 2 \times 1$

46 A number machine uses a rule to change numbers into different numbers. The following picture shows what happens when three different numbers go into and come out of the same number machine.



Which appears to be the rule used by this number machine?

F Multiply by 5

G Subtract 3

H Add 5

J Add 16

47 The first six numbers in the pattern below were made using a subtraction rule.

85, 78, 71, 64, 57, 50, . . .

If the pattern continues the same way, what will be the next two numbers in the pattern?

A 41, 34

B 42, 35

C 43, 36

D 44, 37

48 Which of the following will be a true statement if an equal sign $(=)$ is placed in the box?

F $7+2\square 7+7$

G $7+14\square 14-7$

H $7+7\square 14\times 2$

J $7+7\square 2\times 7$

49 Which is true?

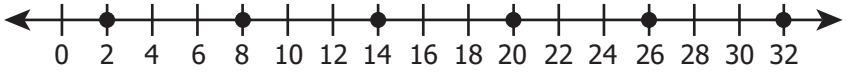
A $4 \times 9 = 9 + 4$

B $4 \times 9 = 9 \times 4$

C $4 \times 9 = 9 - 4$

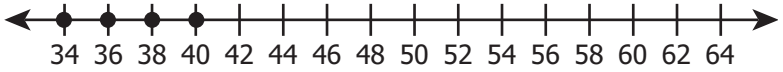
D $4 \times 9 = 9 \div 4$

50 The points on this number line represent a pattern.



Which of these number lines continues this pattern of points in the same way?

F



G

H

J

STOP

Answer Key-4071-M0118

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

Grade 4 Math, Core 1

If you get this many items correct:		Then your converted scale score is:
0		000
1		084
2		133
3		163
4		185
5		202
6		217
7		230
8		241
9		252
10		261
11		270
12		279
13		287
14		294
15		301
16		308
17		315
18		322
19		328
20		335
21		341
22		347
23		353
24		359
25		366
26		372
27		378
28		384
29		390
30		396
31		**403**
32		409
33		416
34		423
35		430
36		437
37		445
38		452
39		461
40		470
41		479
42		490
43		**501**
44		514
45		529
46		547
47		569
48		599
49		600
50		600