

VIRGINIA STANDARDS OF LEARNING

Spring 2008 Released Test

# GRADE 3 MATHEMATICS

---

Form M0118, CORE 1

**Property of the Virginia Department of Education**

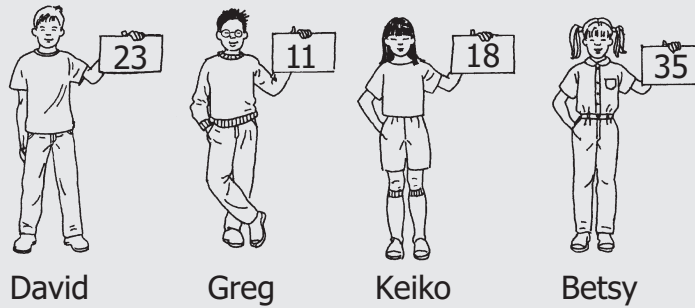
©2008 by the Commonwealth of Virginia, Department of Education, P.O. Box 2120, Richmond, Virginia 23218-2120. All rights reserved. Except as permitted by law, this material may not be reproduced or used in any form or by any means, electronic or mechanical, including photocopying or recording, or by any information storage or retrieval system, without written permission from the copyright owner. Commonwealth of Virginia public school educators may reproduce any portion of these released tests for non-commercial educational purposes without requesting permission. All others should direct their written requests to the Virginia Department of Education, Division of Student Assessment and School Improvement, at the above address or by e-mail to [Student\\_Assessment@doe.virginia.gov](mailto:Student_Assessment@doe.virginia.gov).



**Directions**

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

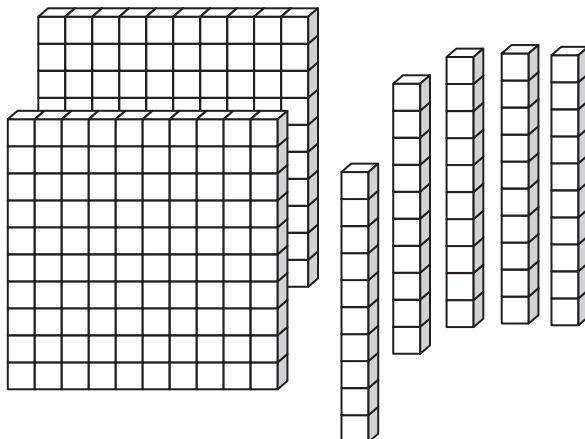
**SAMPLE**



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

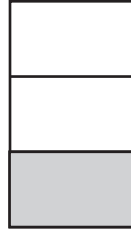
- A** David
- B** Greg
- C** Keiko
- D** Betsy

- 1 Each  in the model has a value of 1. What number is represented by the model shown?

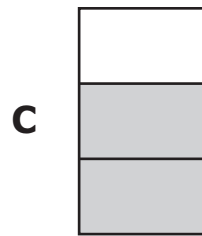
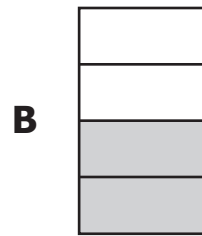
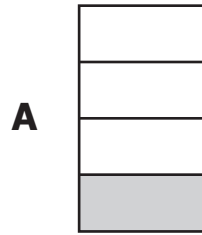


- A 25  
B 205  
C 250  
D 2,005
- 2 A toy store sold 1,032 video games in December. What is 1,032 rounded to the nearest hundred?
- F 1,000  
G 1,030  
H 1,100  
J 1,130

3 This model is shaded to show a fraction of a whole.



Which of the following is shaded to show a fraction with a value LESS THAN the one above?



4 The number sentence below is true.

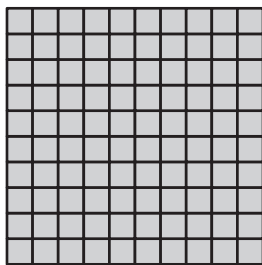
$$6 + 8 = 14$$

Which number makes the following number sentence true?

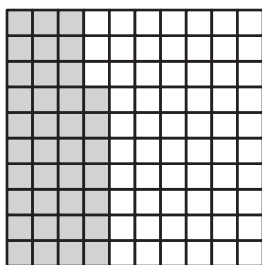
$$14 - \underline{\quad} = 6$$

- F 6
- G 8
- H 20
- J 84

5 This model is shaded to show 1 whole.

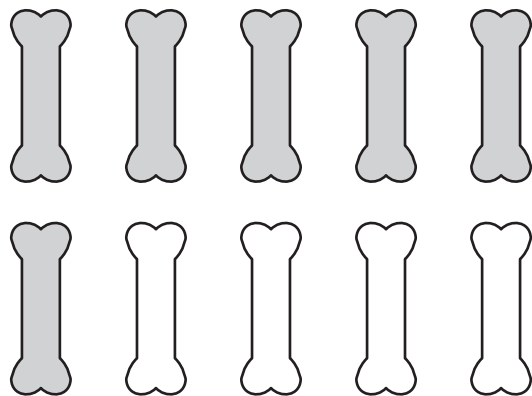


What decimal is shown by the model below?



- A 7.30
- B 3.70
- C 0.73
- D 0.37

**6 This is a group of dog treats.**



**What fraction of the group is shaded?**

**F**  $\frac{1}{6}$

**G**  $\frac{6}{10}$

**H**  $\frac{4}{6}$

**J**  $\frac{6}{4}$



**7** What is the value of the 1 in 13,729 ?

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

**8 February is the second month of the year. The chart shows the months of the year in order as they occur.**

**Months of the Year**

January
February
March
April
May
June
July
August
September
October
November
December

**What is the tenth month of the year?**

- F** December
- G** November
- H** October
- J** September

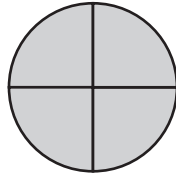
**9 What is 4,996 rounded to the nearest thousand?**

- A** 4,000
- B** 4,800
- C** 4,900
- D** 5,000

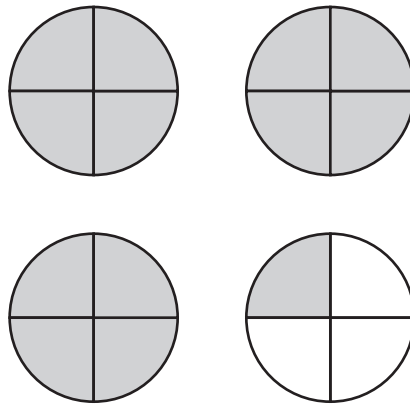
**10 Which of the following numbers represents  
two hundred sixty-three thousand, four hundred seventeen?**

- F** 206,407
- G** 260,417
- H** 263,407
- J** 263,417

**11** This model is shaded to show one whole.



**What number is shown by the shaded parts of the model below?**



- A**  $3\frac{1}{4}$
- B**  $3\frac{1}{3}$
- C**  $3\frac{3}{4}$
- D**  $3\frac{3}{1}$

**12 Which number has an 8 in the thousands place?**

**F** 721,801

**G** 595,382

**H** 248,937

**J** 186,546

**13 Which is true?**

**A** 8,412 is greater than 8,901

**B** 7,563 is greater than 7,563

**C** 5,718 is greater than 5,763

**D** 9,174 is greater than 9,082

**14**      $9 \overline{)72}$

- F** 6
- G** 7
- H** 8
- J** 9

**15** Trey bought 4 rolls of film. Each roll could make 27 pictures. What was the total number of pictures that Trey could make with the 4 rolls he bought?

- A** 35
- B** 108
- C** 211
- D** 828

**16** An ice-cream shop used 1,287 gallons of vanilla ice cream and 956 gallons of chocolate ice cream last month. What was the total number of gallons of vanilla ice cream and chocolate ice cream sold last month?

- F** 331
- G** 1,133
- H** 2,243
- J** 10,847

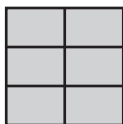
**17**      $2.3 + 6.8 =$

- A** 0.81
- B** 0.91
- C** 8.1
- D** 9.1

**18** At a carnival, 817 tickets were sold on Monday. On Tuesday, 1,265 tickets were sold. What is the total number of tickets sold at the carnival on those two days?

- F** 2,082
- G** 1,652
- H** 1,072
- J** 448

19 This is one.



How much is  $\frac{1}{6} + \frac{3}{6} = ?$

A  $\frac{1}{4}$

B  $\frac{4}{12}$

C  $\frac{2}{6}$

D  $\frac{4}{6}$



**20** There are 9 hooks on a coat rack. Only one coat can hang on each hook. If 4 hooks are NOT used, how many coats are hanging on the coat rack?

**F** 5

**G** 6

**H** 13

**J** 14

**21**  $8 \times 8 =$

**A** 16

**B** 32

**C** 64

**D** 72

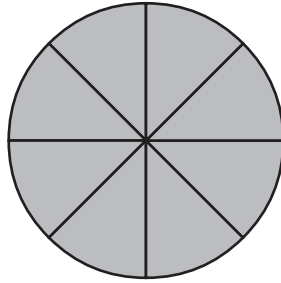
**22** Tina bought 3 boxes of cookies. Each box had exactly 60 cookies in it. What is the total number of cookies Tina bought?

- F** 180
- G** 120
- H** 63
- J** 20

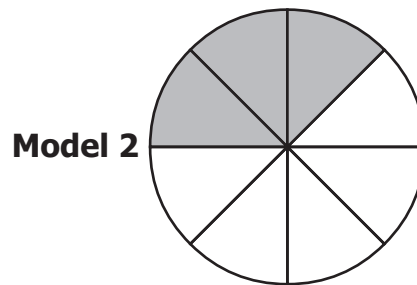
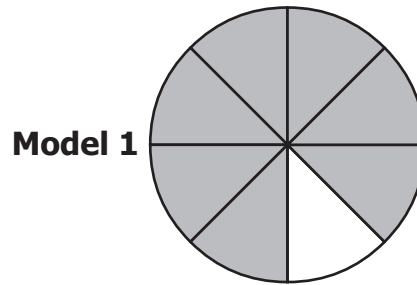
**23**  $9.3 - 0.6 =$

- A** 9.3
- B** 8.7
- C** 0.93
- D** 0.87

24 This model is shaded to represent one whole.



Each of these models is shaded to represent a fraction.



Subtract the fractions. What is the difference?

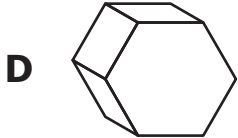
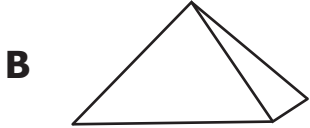
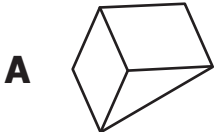
F  $\frac{1}{5}$

G  $\frac{3}{5}$

H  $\frac{4}{8}$

J  $\frac{8}{8}$

25 Which of these figures is a rectangular solid?



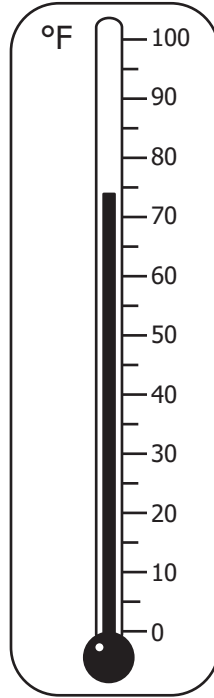
**26 Priscilla cleaned her mom's car and found the coins shown in the picture.**



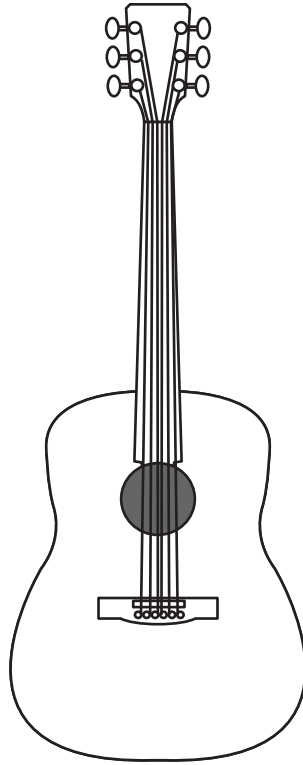
**What is the total amount of money Priscilla found?**

- F** 47¢
- G** 52¢
- H** 57¢
- J** 62¢

27 Which is CLOSEST to the temperature shown on this thermometer?



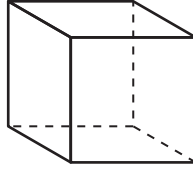
- A 68°F
- B 70°F
- C 74°F
- D 76°F



Which is **CLOSEST** to the height of the guitar shown in the picture?

- F** 4 centimeters
- G** 7 centimeters
- H** 8 centimeters
- J** 10 centimeters

29 Exactly how many faces are on the figure below?



- A 4
- B 6
- C 8
- D 12

30 Using the calendar shown below, what is the date of the fourth Monday of the month?

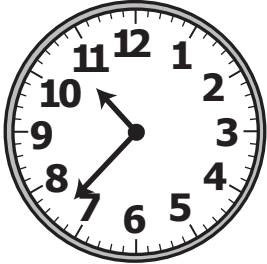
September

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			

- F September 4
- G September 14
- H September 21
- J September 28



31 The clock shows the time the April parade began.



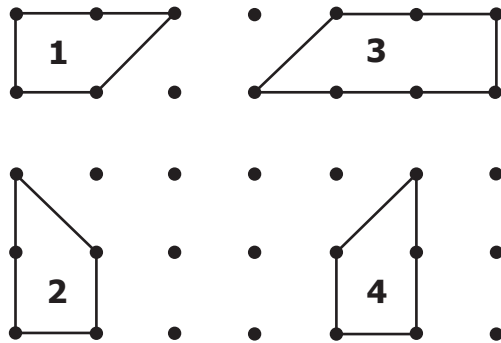
Which of the clocks shows the same time?



**32 Which of the following weighs about the same as a paper clip?**

- F** A desk
- G** A math book
- H** A pair of scissors
- J** A piece of notebook paper

**33**

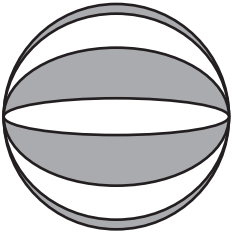


**Which numbered shape is NOT congruent to the other shapes?**

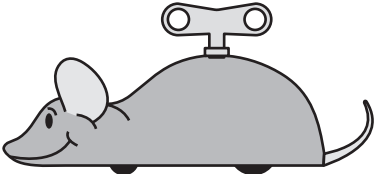
- A** 1
- B** 2
- C** 3
- D** 4

34 Which picture appears to have a line of symmetry?

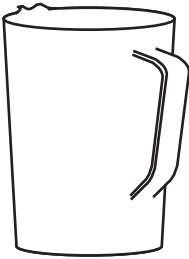
F



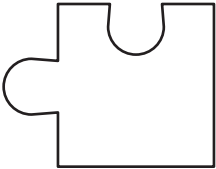
G



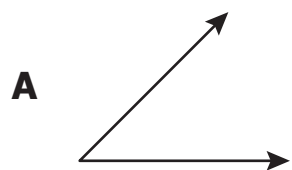
H



J



**35 Which figure represents an angle?**



**36 What is the total number of hours in exactly 1 day?**

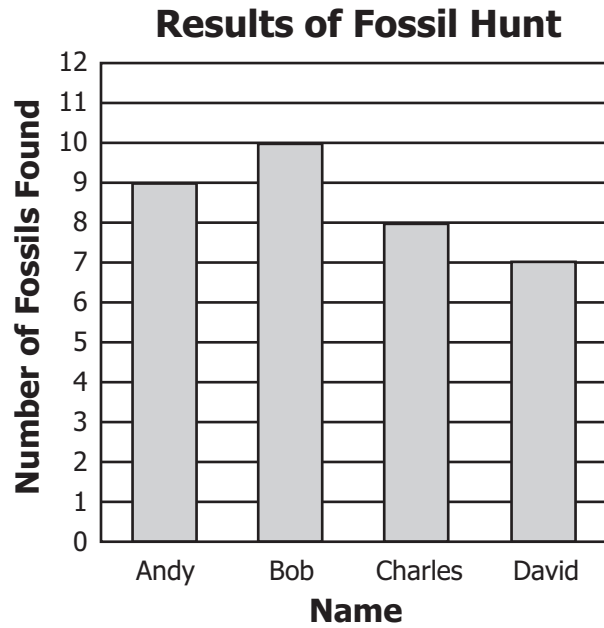
**F** 7

**G** 12

**H** 24

**J** 30

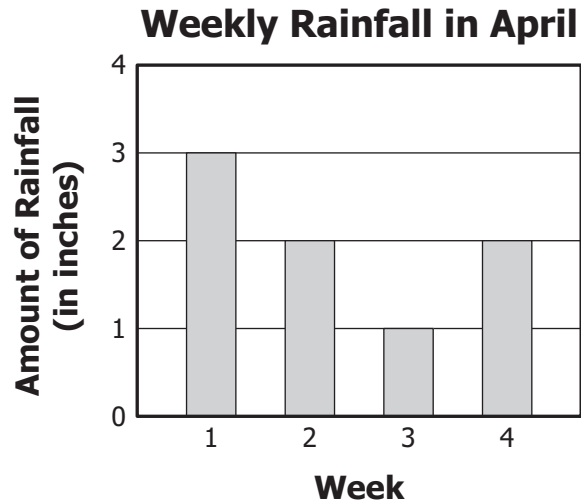
**37** Andy, Bob, Charles, and David went on a fossil hunt. The graph shows the number of fossils each boy found.



**Based on the data in the graph, what was the total number of fossils found altogether?**

- A** 34
- B** 31
- C** 27
- D** 24

- 38** Kaitlyn recorded the amount of rainfall at her house each week during April. The bar graph below shows her results.






**Based on the data in the bar graph, which of the following statements is true?**

- F** Week 2 and week 4 had the same number of inches of rain.
- G** Week 3 had the greatest number of inches of rain.
- H** Week 2 had a greater number of inches of rain than week 1.
- J** Week 1 had the least number of inches of rain.

**39 Look at the picture graph.**

**Seeds Planted in School Garden**

Student	Number of Seeds Planted
Monica	
Blain	
Scott	

**What information is missing from the picture graph?**

- A** A title telling about the graph
- B** A label listing the names of the students that planted seeds
- C** A picture to represent the seeds planted
- D** A key showing the number of seeds each picture represents

**40 Sandy served hot dogs, hamburgers, and pizza for lunch at her party. She also served fruit punch, orange juice, and soda to drink.**

**Combinations for  
Lunch and Drink Items**

Hot dog and fruit punch
Hot dog and orange juice
Hot dog and soda
Hamburger and orange juice
Hamburger and soda
Pizza and fruit punch
Pizza and orange juice
Pizza and soda

**The chart lists some possible combinations for one lunch item and one drink item. Which possible combination is missing from the chart?**

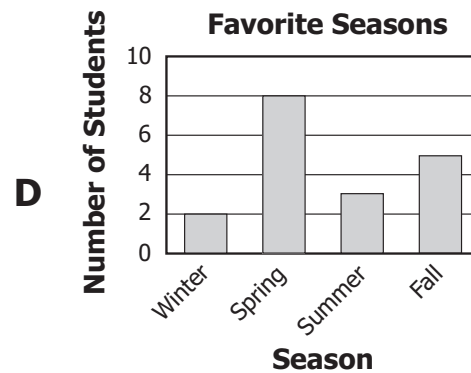
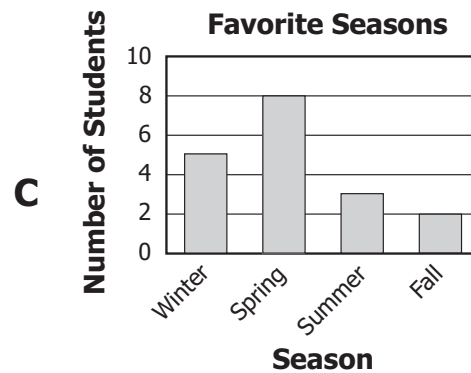
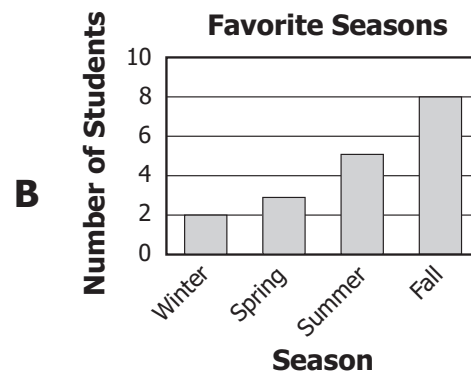
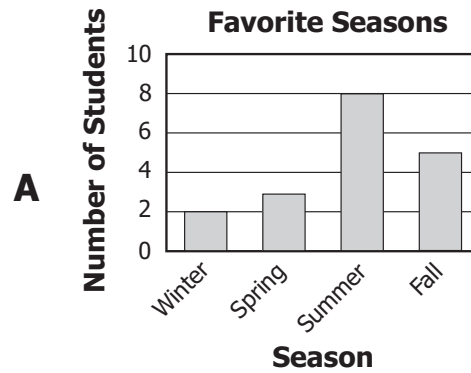
- F** Hamburger and fruit punch
- G** Orange juice and soda
- H** Hamburger and pizza
- J** Fruit punch and orange juice



41 Erika asked 18 classmates to name their favorite season. The results are shown in the table.






Season	Number of Students
Winter	2
Spring	3
Summer	8
Fall	5

Which graph correctly displays the data from the table?

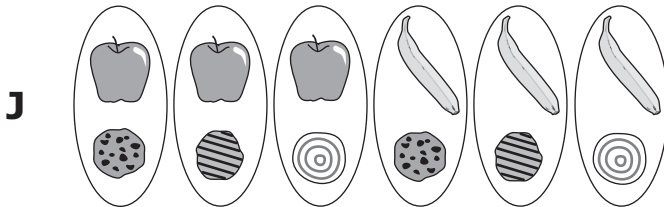
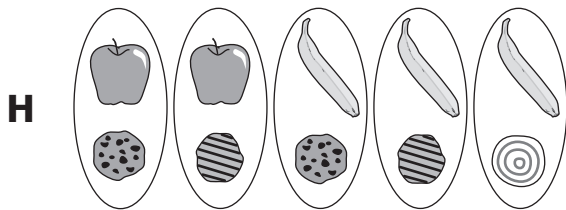
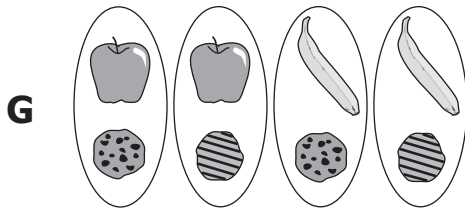
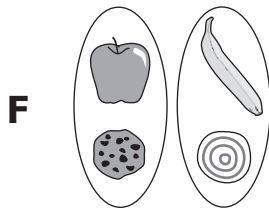


42 Chris is going to make a snack. The pictures in the chart show his choices for a piece of fruit and a cookie.

Snack





Fruit	Cookie
	
	
	

Which shows ALL the different combinations of 1 piece of fruit and 1 cookie that Chris can make?



43 Look at the pictograph.

**Car Colors at the Car Wash**

Color	Number of Cars
White	
Red	
Blue	
Silver	

Key: Each  = 2 cars.

**Based on the graph, what was the total number of cars at the car wash?**

- A** 20
- B** 18
- C** 14
- D** 10

**44 This pattern repeats the first four figures.**



**If this pattern is continued following the same rule, what will be the next 3 figures?**

**F** △□○

**G** □○○

**H** ○△○

**J** ○○△

**45 The number sentence below models an addition property.**

$$1 + 2 = 2 + 1$$

**Which number can be placed in the box so that the following number sentence models the same kind of property?**

$$4 + 9 = 9 + \square$$

**A** 4

**B** 5

**C** 9

**D** 13

**46 Which is true?**

**F**  $42 = 35 + 7$

**G**  $42 = 42 + 2$

**H**  $42 = 7 \times 5$

**J**  $42 = 6 \times 6$

**47 Look at this pattern of numbers.**

**122, 125, 128, 131, 134, \_\_\_\_**

**If this pattern continues following the same rule, what should be the next number?**

**A** 135

**B** 137

**C** 141

**D** 144

**48 Ming had 11 pencils in her pencil box. Each pencil was either yellow or red. If 8 pencils were yellow, how many red pencils were in Ming's pencil box?**

**F** 19

**G** 9

**H** 4

**J** 3

**49** What number goes in the blank to make the statement true?

$$8 \times \underline{\quad} = 8$$

- A** 0
- B** 1
- C** 8
- D** 16

**50** A subtraction rule was used to make the number pattern shown.

**70, 65, 60, 55,**

**The pattern continues in the same way. What will be the next number?**

- F** 60
- G** 50
- H** 45
- J** 40



### Answer Key-3070 M0118

Test Sequence Number	Correct Answer	Reporting Category	Reporting Category Description
1	C	001	Number and Number Sense
2	F	001	Number and Number Sense
3	A	001	Number and Number Sense
4	G	001	Number and Number Sense
5	D	001	Number and Number Sense
6	G	001	Number and Number Sense
7	C	001	Number and Number Sense
8	H	001	Number and Number Sense
9	D	001	Number and Number Sense
10	J	001	Number and Number Sense
11	A	001	Number and Number Sense
12	H	001	Number and Number Sense
13	D	001	Number and Number Sense
14	H	002	Computation and Estimation
15	B	002	Computation and Estimation
16	H	002	Computation and Estimation
17	D	002	Computation and Estimation
18	F	002	Computation and Estimation
19	D	002	Computation and Estimation
20	F	002	Computation and Estimation
21	C	002	Computation and Estimation
22	F	002	Computation and Estimation
23	B	002	Computation and Estimation
24	H	002	Computation and Estimation
25	C	003	Measurement and Geometry
26	J	003	Measurement and Geometry
27	C	003	Measurement and Geometry
28	J	003	Measurement and Geometry
29	B	003	Measurement and Geometry
30	J	003	Measurement and Geometry
31	C	003	Measurement and Geometry
32	J	003	Measurement and Geometry
33	C	003	Measurement and Geometry
34	F	003	Measurement and Geometry
35	A	003	Measurement and Geometry
36	H	003	Measurement and Geometry
37	A	004	Probability and Statistics
38	F	004	Probability and Statistics
39	D	004	Probability and Statistics
40	F	004	Probability and Statistics
41	A	004	Probability and Statistics
42	J	004	Probability and Statistics
43	A	004	Probability and Statistics
44	G	005	Patterns, Functions, and Algebra
45	A	005	Patterns, Functions, and Algebra
46	F	005	Patterns, Functions, and Algebra
47	B	005	Patterns, Functions, and Algebra
48	J	005	Patterns, Functions, and Algebra
49	B	005	Patterns, Functions, and Algebra
50	G	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	78
2	124
3	151
4	171
5	188
6	201
7	213
8	224
9	233
10	242
11	251
12	258
13	266
14	273
15	280
16	286
17	293
18	299
19	305
20	311
21	316
22	322
23	328
24	334
25	339
26	345
27	350
28	356
29	362
30	367
31	373
32	379
33	385
34	391
35	398
<b>36</b>	<b>404</b>
37	411
38	419
39	426
40	434
41	443
42	452
43	463
44	474
45	488
<b>46</b>	<b>503</b>
47	523
48	550
49	595
50	600