

**VIRGINIA  
STANDARDS OF LEARNING ASSESSMENTS**

**Spring 2003 Released Test**

---

**GRADE 3  
MATHEMATICS**

**Property of the Virginia Department of Education**

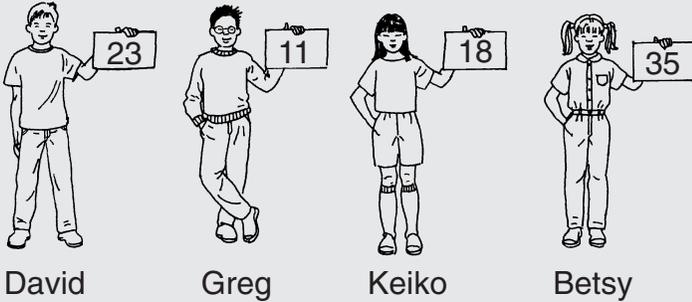
© 2003 by the Commonwealth of Virginia Department of Education, James Monroe Building, 101 N. 14th Street, Richmond, Virginia, 23219. All rights reserved. Except as permitted by law, this material may not be reproduced or used in any form or by any means, electronic or mechanical, including photocopying or recording, or by any information storage or retrieval system, without written permission from the copyright owner. Commonwealth of Virginia public school educators may photocopy or print any portion of these Released Tests for educational purposes without requesting permission. All others should direct their requests to the Commonwealth of Virginia Department of Education at (804) 225-2102, Division of Assessment and Reporting.

## Mathematics

### DIRECTIONS

Read and solve each question.

#### SAMPLE



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

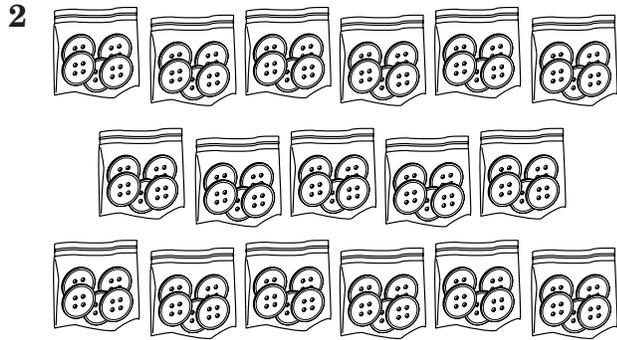
- A David
- B Greg
- C Keiko
- D Betsy

- 1 Brooke guessed that there are 605,788 buttons in the jar below.



**Which of the following shows 605,788 written in words?**

- A Six hundred, seventy-eight
- B Six hundred five, seven hundred eighty-eight
- C Six hundred five thousand, seventy-eight
- D Six hundred five thousand, seven hundred eighty-eight



Each of these bags has exactly 5 buttons in it. How many buttons are there in all?

- F 17
- G 80
- H 85
- J 90

3 Greg read about a 365,970 mile space flight. What is the value of the 3 in 365,970?

- A 300
- B 3,000
- C 30,000
- D 300,000

4 Sara can use the fact  $12 - 6 = 6$  to help solve a related problem. Which of the following could be the problem she is trying to solve?

- F  $\square + 6 = 12$
- G  $\square \times 6 = 6$
- H  $\square - 6 = 0$
- J  $\square \div 6 = 12$

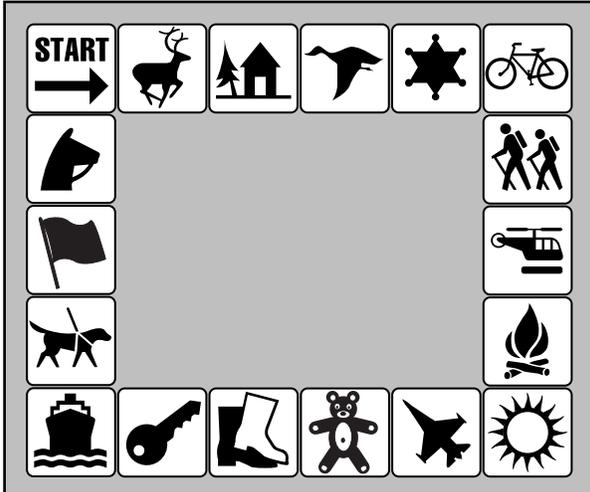
5 The figure shown below is shaded to represent a fraction.



Which of the following is shaded to represent a fraction with a value EQUAL TO the one above?

- A
- B
- C
- D

6



Which figure is on the 15th space from START?



7 Virginia covers one hundred two thousand, five hundred fifty-eight square kilometers of land. Which shows this number?

- A 1,258
- B 12,558
- C 102,558
- D 1,200,558

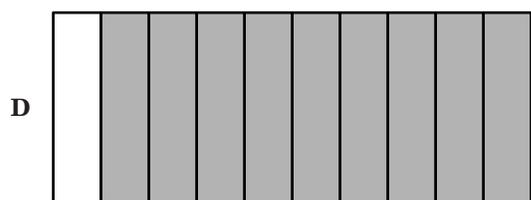
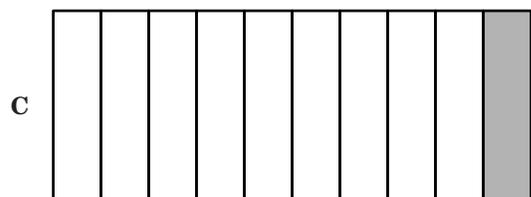
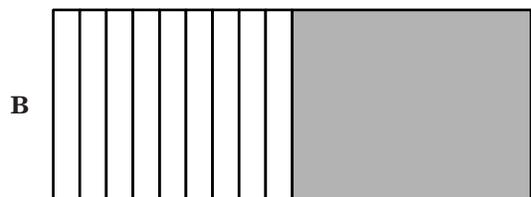
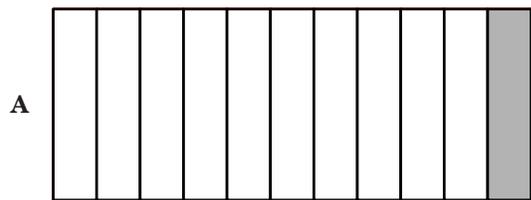
8 A clown walks on stilts that are 147 centimeters tall.



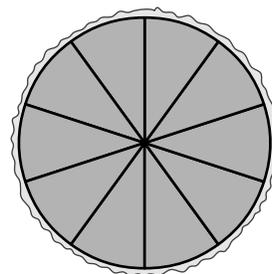
What is 147 rounded to the nearest hundred?

- F 250
- G 200
- H 150
- J 100

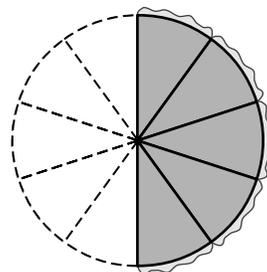
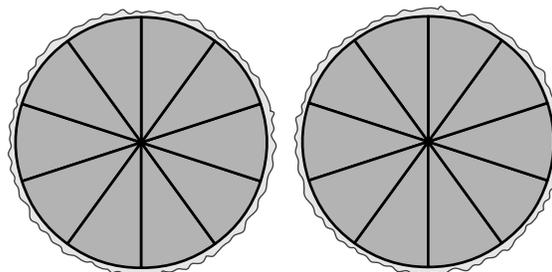
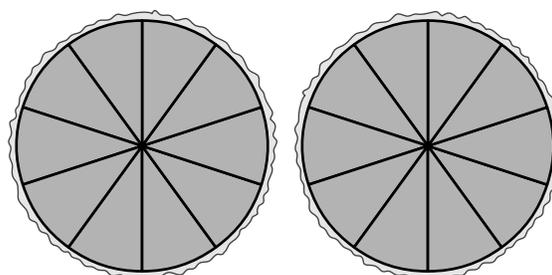
9 Which figure shows  $\frac{1}{10}$  shaded?



10 This is a whole.

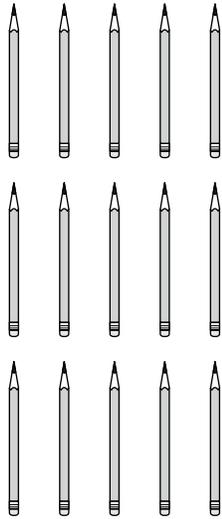


Which tells the exact number of pizzas shown in the picture below?



- F 5.4
- G 4.5
- H 0.54
- J 0.45

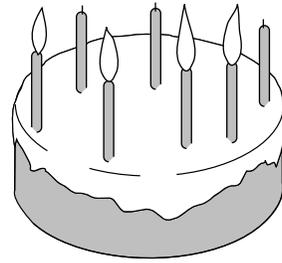
11



Tracy bought these pencils. Each pencil cost 2 cents. How much did the pencils cost all together?

- A 5¢
- B 15¢
- C 30¢
- D 45¢

12



What fraction of the candles on the cake is lit?

F  $\frac{4}{7}$

G  $\frac{4}{3}$

H  $\frac{3}{7}$

J  $\frac{1}{4}$

- 13 The table below shows the length of some of the longest rivers in the world.

River Lengths

Name of River	Length in Miles
Mississippi	2,340
Nile	4,145
Yangtze	3,964
Amazon	4,000
Yenisei	3,442

The Amazon River is 4,000 miles long. This is LESS THAN the length of which river?

- A Mississippi River
- B Nile River
- C Yangtze River
- D Yenisei River

- 14 Diane has the money shown below.



Shelly has a group of coins with the same total value as Diane's money. Which could be Shelly's money?

F

G

H

J

15 A school library had 2,089 books. It received 853 more books during the year. How many books did the library have then?

- A 1,236
- B 2,832
- C 2,836
- D 2,942

16  $42 \div 7 =$

- F 5
- G 6
- H 7
- J 8

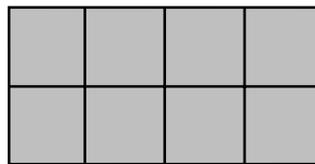
17 The word problem below is part of Ben's homework.

Cathy bought 25 packages of balloons. Each package has 4 balloons. How many balloons did she buy in all?

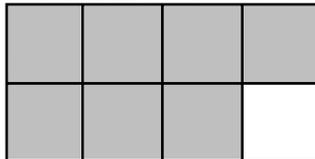
Which of the following number sentences can Ben use to solve this problem?

- A  $25 \times 4 = \square$
- B  $25 + 4 = \square$
- C  $25 - 4 = \square$
- D  $25 \div 4 = \square$

18 This is a whole cake.



Mark's part of the cake is shaded below.



He gave these 5 pieces away.



What fraction of the whole cake did Mark have left?

F  $\frac{2}{4}$

G  $\frac{2}{6}$

H  $\frac{2}{7}$

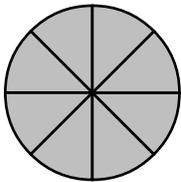
J  $\frac{2}{8}$

19

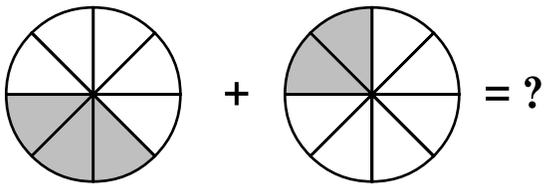
$$\begin{array}{r} 56.4 \\ - 32.7 \\ \hline \end{array}$$

- A 14.7
- B 23.7
- C 24.3
- D 24.7

20 This is a whole.

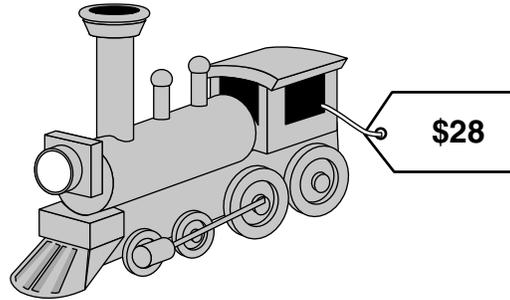


What is



- F  $\frac{1}{3}$
- G  $\frac{3}{8}$
- H  $\frac{2}{3}$
- J  $\frac{5}{8}$

21 At the craft fair, Tom sold toy trains like the one shown below.



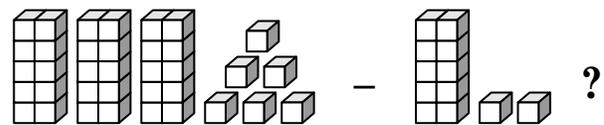
He sold each train for \$28. How much did Tom make by selling 4 trains?

- A \$24
- B \$32
- C \$112
- D \$832

22 This is one. This is one tenth.



What is



- F 2.4
- G 2.0
- H 1.6
- J 0.1

23 Paul wanted to buy a shirt that cost \$15. He had \$7. How much more did Paul need to buy the shirt?

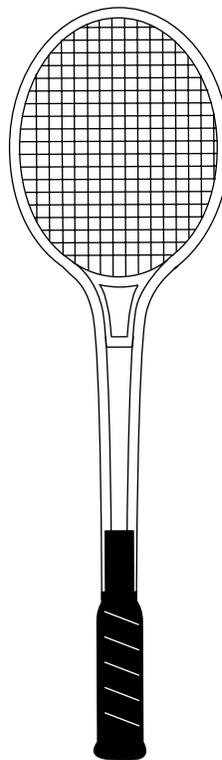
- A \$22
- B \$12
- C \$8
- D \$3

24  $7 \times 9 =$

- F 16
- G 32
- H 56
- J 63

25 Use your centimeter ruler to help you answer this question.

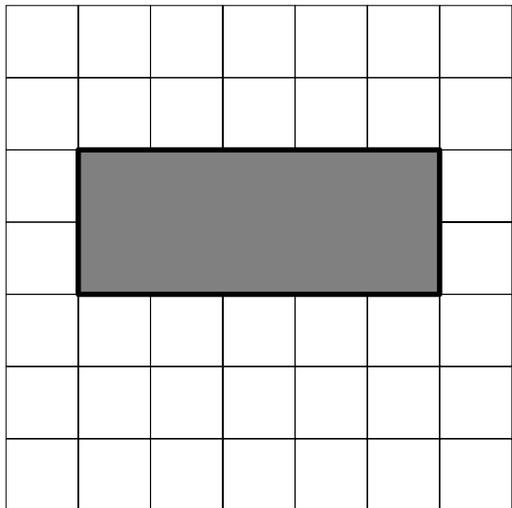
Which is CLOSEST to the length of this tennis racket?



- A 9 centimeters
- B 10 centimeters
- C 11 centimeters
- D 12 centimeters

Note that due to varying printer properties, measurement items may not appear in exact proportions.

- 26 Each small square on the grid is 1 square unit.



How many square units are needed to make the shaded figure shown on the grid?

- F 5
- G 7
- H 10
- J 14

- 27 Martin drew the picture shown below.

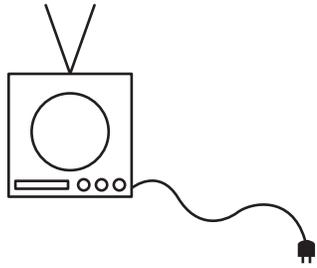


Which of the following is NOT true about the boy in the picture?

- A He is far from the tree.
  - B He is close to the tree.
  - C He is beside the tree.
  - D He is near the tree.
- 28 Linda and Tom have been friends for 1 year. How many months make 1 year?

- F 6
- G 12
- H 18
- J 24

29 Timmy saw this picture of an old television.



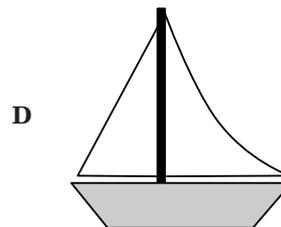
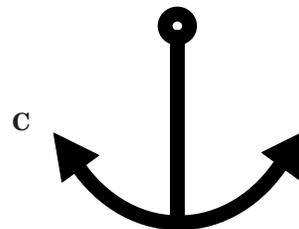
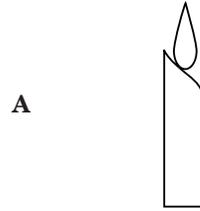
Which part of the television is the BEST model of an angle?



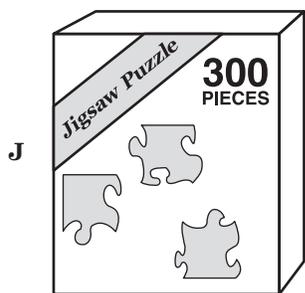
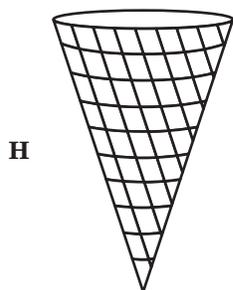
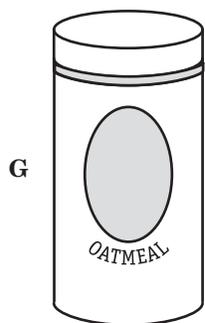
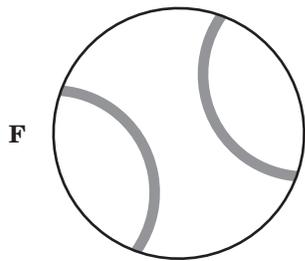
30 What shape are the faces of a cube?

- F Circle
- G Triangle
- H Square
- J Pentagon

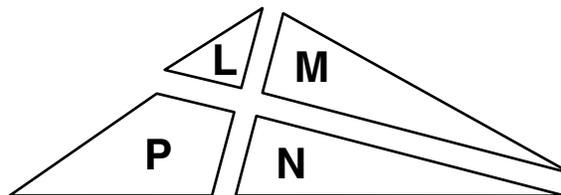
31 In which of the figures below is it possible to draw a line of symmetry?



32 Which of the following is the BEST example of a sphere?

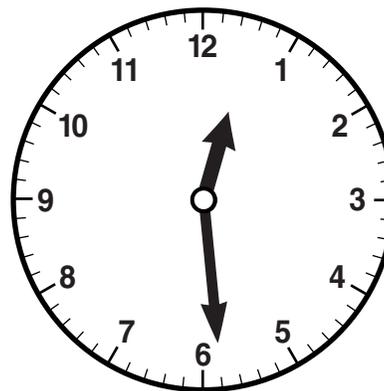


33 Which 2 shapes below are congruent?



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

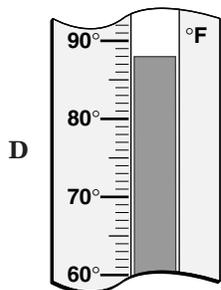
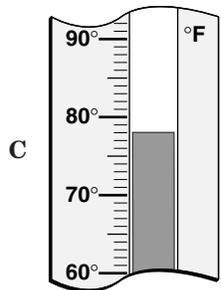
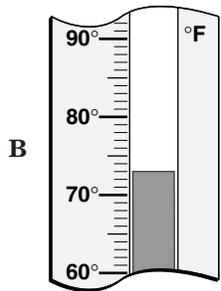
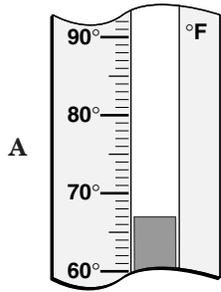
34 The school principal has a fire drill planned for the time shown on the clock below.



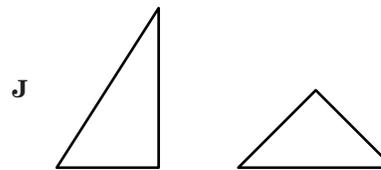
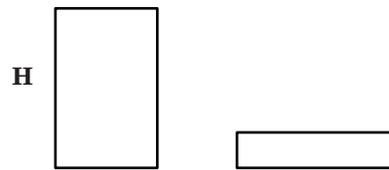
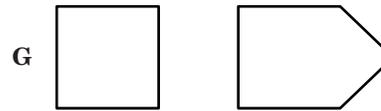
Which is closest to the time shown on the clock?

- F 12:06
- G 12:29
- H 1:06
- J 1:29

35 Which thermometer shows 78°F?



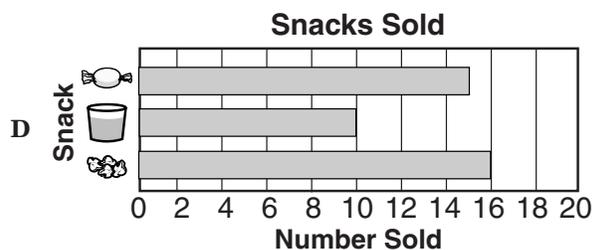
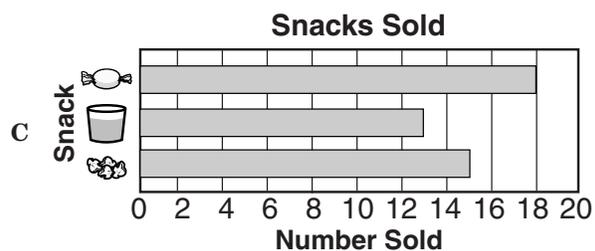
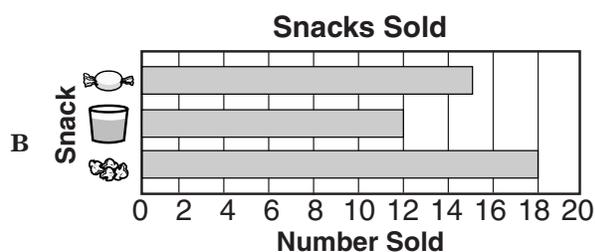
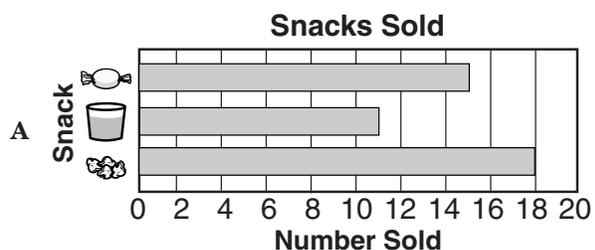
36 Look at the pairs of shapes. Which is a pair of rectangles?



37 The chart below shows the number of some different snacks sold before a movie.

Snacks Sold		
Snack		Number Sold
Candy		15
Drink		11
Popcorn		18

Which graph below shows the correct number sold for each kind of snack?



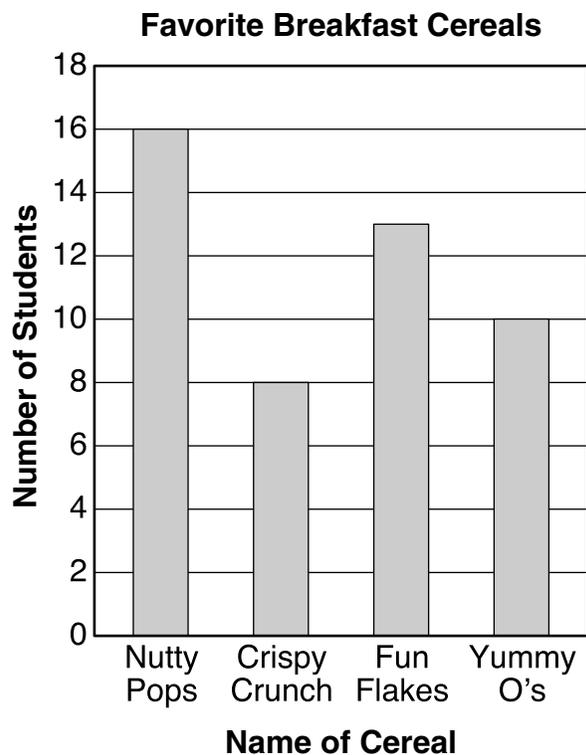
38

NOVEMBER						
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				

Diana's birthday is on November 23. Hilary's birthday is six days before that. When is Hilary's birthday?

- F November 6
- G November 17
- H November 18
- J November 24

39 The bar graph below shows the favorite breakfast cereals of some students.

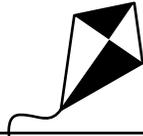
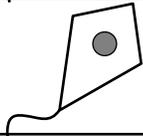
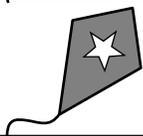
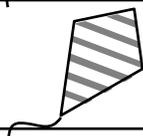


How many **MORE** students like Nutty Pops than Yummy O's?

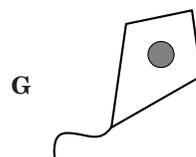
- A 16
- B 6
- C 3
- D 1

40 The chart below shows the number of each kind of kite that are mixed up in a box.

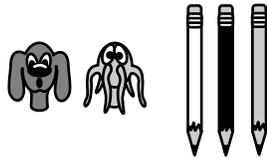
**Kites for Sale**

Kind of Kite	Number of Kites
	4
	7
	18
	11

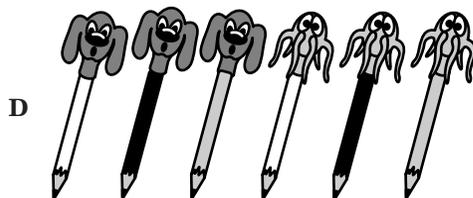
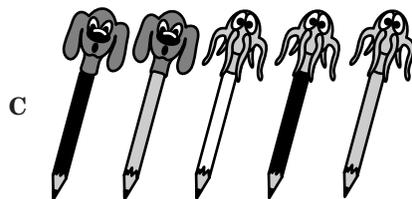
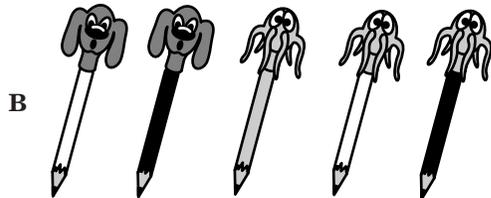
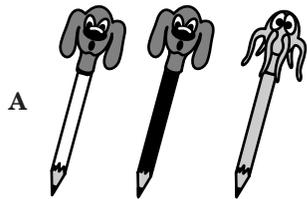
If Cathy picks a kite from the box without looking, what kind is it **MOST LIKELY** to be?



- 41 These are the different erasers and pencils Adrian has.



Which of the following shows all the different ways that Adrian can combine 1 eraser and 1 pencil?



- 42 The picture graph below shows the number of sweaters ordered in each size in one week.

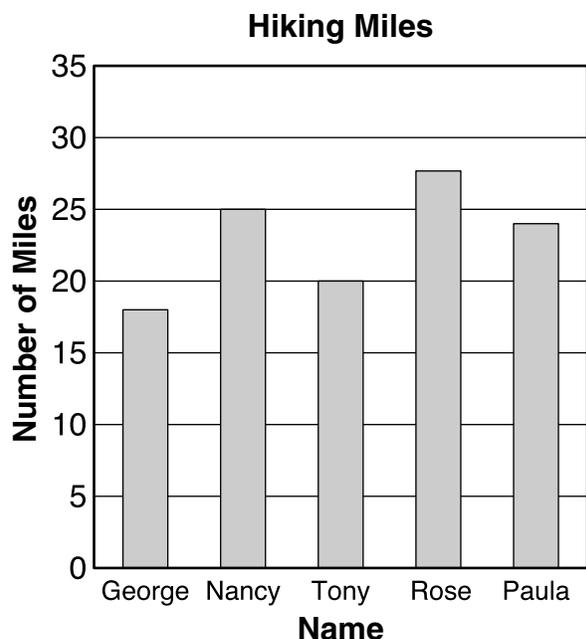
Sweaters Ordered	
Size	Number Ordered
Small	
Medium	
Large	
Extra Large	

Key: = 3 sweaters.

Which size of sweater had exactly 15 sweaters ordered?

- F Small
- G Medium
- H Large
- J Extra Large

- 43 The bar graph below shows the number of miles each member of a club hiked in one week.



Which is CLOSEST to the number of miles Paula hiked?

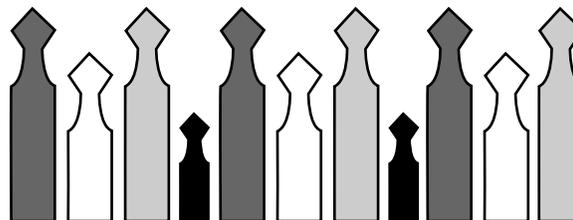
- A 5
  - B 14
  - C 20
  - D 24
- 44 Look at the pattern of numbers shown below.

**21 29 37 45**        ?

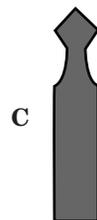
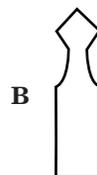
If the pattern continues in the same way, what will be the next number?

- F 46
- G 52
- H 53
- J 63

- 45 Look at the pattern of shapes below.



If the pattern continues in the same way, what will the next shape look like?



- 46 The table below shows the number of vans needed for different numbers of students to go on a camping trip.

<b>Number of Vans</b>	1	2	3	4	5	6
<b>Number of Students</b>	6	12	18	24	30	?

If the pattern in the table continues, how many students are able to ride in 6 vans?

- F 31
- G 36
- H 40
- J 42

- 47 Shauna had some toy cars in a bag. She gave 8 of the cars to Lucas. After that, Shauna had 10 toy cars. How many toy cars were in the bag before Shauna gave any to Lucas?

- A 2
- B 9
- C 12
- D 18

- 48 Numbers that go into the machine below are changed to a different number using a rule.



Which of the following could be the rule the machine uses?

- F Add 1
- G Add 3
- H Add 7
- J Add 10

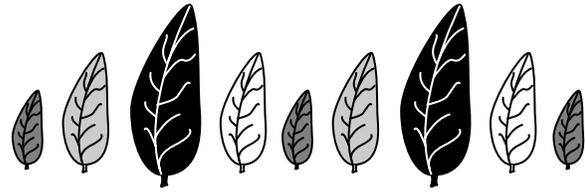
49 Look at the pattern of shapes below.



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



50 Look at the pattern of leaves below.



If the pattern continues in the same way, what will the next leaf in the pattern look like?



## Answer Key

Test Sequence	Correct Answer	Reporting Category	Reporting Category Description
1	D	006	Number and Number Sense
2	H	006	Number and Number Sense
3	D	006	Number and Number Sense
4	F	006	Number and Number Sense
5	B	006	Number and Number Sense
6	G	006	Number and Number Sense
7	C	006	Number and Number Sense
8	J	006	Number and Number Sense
9	C	006	Number and Number Sense
10	G	006	Number and Number Sense
11	C	006	Number and Number Sense
12	F	006	Number and Number Sense
13	B	006	Number and Number Sense
14	F	007	Computation and Estimation
15	D	007	Computation and Estimation
16	G	007	Computation and Estimation
17	A	007	Computation and Estimation
18	J	007	Computation and Estimation
19	B	007	Computation and Estimation
20	J	007	Computation and Estimation
21	C	007	Computation and Estimation
22	F	007	Computation and Estimation
23	C	007	Computation and Estimation
24	J	007	Computation and Estimation
25	B	008	Measurement and Geometry
26	H	008	Measurement and Geometry
27	A	008	Measurement and Geometry
28	G	008	Measurement and Geometry
29	A	008	Measurement and Geometry
30	H	008	Measurement and Geometry
31	C	008	Measurement and Geometry
32	F	008	Measurement and Geometry
33	B	008	Measurement and Geometry
34	G	008	Measurement and Geometry
35	C	008	Measurement and Geometry
36	H	008	Measurement and Geometry
37	A	009	Probability and Statistics
38	G	009	Probability and Statistics
39	B	009	Probability and Statistics
40	H	009	Probability and Statistics
41	D	009	Probability and Statistics
42	F	009	Probability and Statistics
43	D	009	Probability and Statistics
44	H	010	Patterns, Functions, and Algebra
45	D	010	Patterns, Functions, and Algebra
46	G	010	Patterns, Functions, and Algebra
47	D	010	Patterns, Functions, and Algebra
48	H	010	Patterns, Functions, and Algebra
49	A	010	Patterns, Functions, and Algebra
50	J	010	Patterns, Functions, and Algebra