

- 1 There are 24 dancers in Joy's recital. If  $n$  represents the number of jazz dancers, which expression represents the number of other types of dancers? (10-1)

A.  $24 + n$   
 B.  $24 - n$   
 C.  $24 \times n$   
 D.  $24 \div n$

- 2 Shanna and Riley have the same birthday, but Riley is 7 years older. In the table,  $s$  is Shanna's age and  $s + 7$  is Riley's age. What is Riley's age when Shanna is 11 years old? (10-1)

$s$	3	6	11
$s + 7$	10	13	□

F. 18  
 G. 17  
 H. 14  
 I. 12

- 3 Every year a dog lives is like 7 years a human lives. Which is a way to find the number of human years that are equal to 9 dog years? (10-3)

Dog Years	1	2	3	4
Human Years	7	14	21	28

A. Subtract 7 from 9  
 B. Add 7 and 9  
 C. Divide 9 by 7  
 D. Multiply 9 by 7

- 4 What is a rule for the table? (10-2)

Regular Price ( $p$ )	\$157	\$145	\$133	\$121
Price with the Coupon	\$145	\$133	\$121	\$109

F.  $p + 13$   
 G.  $p - 13$   
 H.  $p + 12$   
 I.  $p - 12$

- 5 Mr. Robinson used the table below to calculate how many adults are needed to help on the fourth-grade trip to the observatory.

Number of Students ( $s$ )	8	16	24	32
Number of Adults	1	2	3	4

Which rule shows how many adults are needed for  $s$  students? (10-3)

A.  $s - 7$   
 B.  $8 \times s$   
 C.  $s - 8$   
 D.  $8 \div s$

- 6 The cost in dollars for  $n$  students to attend a workshop is  $(7 \times n) + 12$ . What is the cost for 6 students to attend the workshop? (10-5)

F. \$25  
 G. \$54  
 H. \$126  
 I. \$156

- 7 Tad had numbers printed on the back of football jerseys. Below are the first five numbers he had printed. If the pattern continues, what are the next three numbers he will have printed on the jerseys? (10-4)

9, 18, 27, 36, 45, □, □, □

A. 54, 63, 72  
 B. 54, 63, 71  
 C. 63, 64, 72  
 D. 63, 72, 81

- 8 There are 3 chaperones on the field trip and 7 students in each group. Let  $g$  equal the number of groups. Which algebraic expression can be used to find the total number of people on the field trip? (10-6)

F.  $7g - 3$   
 G.  $g + 3$   
 H.  $3g + 7$   
 I.  $7g + 3$

- 9 Which number completes a rule for the table? (10-2)

$x$	5	9	14
$x + \square$	77	31	36

A. 20  
 B. 21  
 C. 22  
 D. 23

- 10 What is the value of the expression  $9b - 2$  for  $b = 5$ ? (10-6)

F. 40  
 G. 43  
 H. 45  
 I. 93

- 11 Each cube has 6 faces. If Tandra connects 2 cubes, she can see 10 faces. If Tandra connects 7 cubes, how many faces of the cubes will she be able to see? (10-7)

30

Cubes	2	3	4	5	6	7
Faces	10	14	18	22	26	□



- 12 Draw the next two shapes in the pattern. Explain how you decided what shapes to draw. (10-4)



Sample answer: I looked at the given shapes to find the pattern. The shaded section moves clockwise and skips every other section. I then used the pattern to draw the next two shapes.