

CHAPTER-6 | ALGEBRA PLAY

QUIZ
PART-07

1. In Calendar Magic, the chosen grid is of size:

A. 1×2
B. 2×2
C. 2×3
D. 3×3

(B)

Explanation: The trick uses a 2×2 block from the calendar.

2. What is the sum of the numbers 6, 7, 13, and 14?

A. 36
B. 38
C. 40
D. 42

(C)

Explanation: $6 + 7 + 13 + 14 = 40$.

3. If the top-left number of a 2×2 calendar grid is a , the top-right number is:

A. $a + 2$
B. $a + 5$
C. $a + 6$
D. $a + 1$

(D)

Explanation: Consecutive dates in a row differ by 1.

4. If the top-left number is a , the bottom-left number is:

A. $a + 1$
B. $a + 6$
C. $a + 7$
D. $a + 8$

(C)

Explanation: Dates in the next week are 7 more.

5. If the top-left number is a , the bottom-right number is:

A. $a + 6$
B. $a + 7$
C. $a + 8$
D. $a + 9$

(C)

Explanation: Bottom-right = $(a + 1) + 7 = a + 8$.

6. The sum of a 2×2 calendar grid with entries a , $a + 1$, $a + 7$, and $a + 8$ is:

A. $2a + 16$
B. $3a + 16$
C. $4a + 16$
D. $4a + 8$

(C)

Explanation: $a + (a + 1) + (a + 7) + (a + 8) = 4a + 16$.

7. If the total of a 2×2 grid is 36, the top-left number is:

A. 3
B. 4
C. 5
D. 6

(C)

Explanation: $4a + 16 = 36 \Rightarrow a = 5$.

8. Which 2×2 grid has a total of 36?

A. 4, 5, 11, 12
B. 5, 6, 12, 13
C. 6, 7, 13, 14
D. 7, 8, 14, 15

(B)

Explanation: $5 + 6 + 12 + 13 = 36$.

9. If the total sum of a 2×2 grid is 68, the top-left number is:

A. 11
B. 12
C. 13
D. 14

(C)

Explanation: $4a + 16 = 68 \Rightarrow a = 13$.

10. Which 2×2 grid has a total of 68?

A. 12, 13, 19, 20
B. 13, 14, 20, 21
C. 14, 15, 21, 22
D. 15, 16, 22, 23

(B)

Explanation: $13 + 14 + 20 + 21 = 68$.