

CHAPTER-6 | ALGEBRA PLAY

QUIZ
PART-11

1. In the divisibility trick, the chosen number must be:
- A. A 1-digit number
 - B. A 2-digit number with different digits
 - C. A 3-digit number
 - D. Any number (B)

Explanation: The trick begins with a 2-digit number having different digits.

2. What is done after choosing the number?
- A. Multiply by 9
 - B. Add the digits
 - C. Reverse the digits
 - D. Divide by 10 (C)

Explanation: The digits are reversed to form another number.

3. In the example, the chosen number is:
- A. 27
 - B. 74
 - C. 47
 - D. 39 (C)

Explanation: The example starts with 47.

4. What is the reverse of 47?
- A. 17
 - B. 27
 - C. 64
 - D. 74 (D)

Explanation: Reversing the digits of 47 gives 74.

5. What is the difference between 74 and 47?
- A. 17
 - B. 27
 - C. 37
 - D. 47 (B)

Explanation: $74 - 47 = 27$.

6. After finding the difference, the result is divided by:
- A. 2
 - B. 5
 - C. 9
 - D. 10 (C)

Explanation: The chapter divides the difference by 9.

7. What is the value of $27 \div 9$?
- A. 2
 - B. 3
 - C. 4
 - D. 5 (B)

Explanation: 27 divided by 9 equals 3.

8. According to the trick, what happens when the difference is divided by 9?
- A. A remainder always appears
 - B. The quotient is always 1
 - C. There is no remainder
 - D. The answer is always 9 (C)

Explanation: The result is always divisible by 9.

9. If a two-digit number is represented as $10a + b$ and its reverse as $10b + a$, their difference is:
- A. $9(a - b)$
 - B. $a - b$
 - C. $10(a - b)$
 - D. $11(a - b)$ (A)

Explanation: $(10a + b) - (10b + a) = 9(a - b)$.

10. Therefore, the difference between a two-digit number and its reverse is always divisible by:
- A. 2
 - B. 5
 - C. 9
 - D. 10 (C)

Explanation: The difference equals $9(a - b)$, which is always a multiple of 9.