

Answers with Explanations

- 1. a. System.out.println(2 + "bc");
 - Output: 2bc
 - Explanation: 2 is treated as part of a string concatenation with "bc",
 resulting in "2bc".
- 2. b. System.out.println(2 + 3 + "bc");
 - Output: 5bc
 - Explanation: 2 + 3 is evaluated first, resulting in 5, which is then concatenated with "bc".
- 3. C. System.out.println((2 + 3) + "bc");
 - Output: 5bc
 - Explanation: The parentheses force 2 + 3 to be evaluated first, resulting in 5, which is then concatenated with "bc".
- 4. d. System.out.println("bc" + (2 + 3));
 - Output: bc5
 - Explanation: The expression inside the parentheses (2 + 3) is evaluated first, resulting in 5, and then "bc" is concatenated with 5.
- 5. e. System.out.println("bc" + 2 + 3);
 - Output: bc23
 - Explanation: "bc" is concatenated with 2, resulting in "bc2", and then 3 is concatenated, producing "bc23".
- 6. f. System.out.println("bc" + (2 + 3) + "a" + 5);
 - Output: bc5a5
 - Explanation: (2 + 3) is evaluated first, resulting in 5, which is then concatenated with "bc", giving "bc5". The "a" is then concatenated, resulting in "bc5a", and finally 5 is concatenated, giving "bc5a5".
- 7. g. System.out.println(5 + "bc" + (2 * 3));
 - Output: 5bc6
 - Explanation: 5 is concatenated with "bc", resulting in "5bc". Then,
 (2 * 3) is evaluated, resulting in 6, which is concatenated to give
 "5bc6".

These explanations should clarify the behavior of operator precedence and associativity in

Java, especially with the + operator for string concatenation and arithmetic operations.