Academia JAVA Xideral
Examen Semana 1
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1. Which of the following Java operators can be used with `boolean` variables? (Choose all that apply.)

    1. `==`
    2. `+`
    3. `--`
    4. `!`
    5. `%`
    6. `<=`
    7. Cast with `(boolean)`

2. What data type (or types) will allow the following code snippet to compile? (Choose all that apply.)

    1. `byte apples = 5;`
    2. `short oranges = 10;`
    3. `_____ bananas = apples + oranges;`

    1. `int`
    2. `long`
    3. `boolean`

4. `double`
5. `short`
6. `byte`

3. What change, when applied independently, would allow the following code snippet to compile? (Choose all that apply.)

```
3: long ear = 10;
4: int hearing = 2 * ear;
```

1. No change; it compiles as is.
2. Cast `ear` on line 4 to `int`.
3. Change the data type of `ear` on line 3 to ~~`short`~~.
4. Cast `2 * ear` on line 4 to `int`.
5. Change the data type of `hearing` on line 4 to `short`.
6. Change the data type of `hearing` on line 4 to `long`.

6. What is the output of the following program?

```
  1: public class CandyCounter {
  2:    static long addCandy(double fruit, float
vegetables) {
  3:       return (int)fruit+vegetables;
  4:    }
  5:
  6:    public static void main(String[] args) {
  7:       System.out.print(addCandy(1.4, 2.4f) + "-
");
  8:       System.out.print(addCandy(1.9, (float)4)
+ "-");
  9:       System.out.print(addCandy((long)(int)
(short)2, (float)4)); } }
```

1. 4-6-6.0
2. 3-5-6
3. 3-6-6
4. 4-5-6
5. The code does not compile because of line 9.
6. None of the above

9. What are the unique outputs of the following code snippet? (Choose all that apply.)

```
int a = 2, b = 4, c = 2;
System.out.println(a > 2 ? --c : b++);
System.out.println(b = (a!=c ? a : b++));
System.out.println(a > b ? b < c ? b : 2 : 1);
```

1. 1
2. 2
3. 3
4. 4
5. 5
6. 6
7. The code does not compile.

17. Given the following code snippet, what is the value of the variables after it is executed? (Choose all that apply.)

```
int ticketsTaken = 1;
int ticketsSold = 3;
ticketsSold += 1 + ticketsTaken++;
ticketsTaken *= 2;
ticketsSold += (long)1;
```

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1. `ticketsSold` is `8`
2. `ticketsTaken` is `2`
3. `ticketsSold` is `6`
4. `ticketsTaken` is `6`
5. `ticketsSold` is `7`
6. `ticketsTaken` is `4`
7. The code does not compile.