WEEK 1 TEST

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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)

   Answer: boolean is a type and this put types in the code.

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

   Answer: It's a numeric type

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.

Answer: Reduce valor long to int

4. 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. 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

Answer: At the final the ternary expresión is false, so returns 1.

6. Given the following code snippet, what is the value of the variables after it is executed?

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

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.

7. What is the output of the following code snippet? (Choose all that apply.)

```
  3: int temperature = 4;
  4: long humidity = -temperature + temperature * 3;
  5: if (temperature>=4)
  6: if (humidity < 6) System.out.println("Too
Low");
  7: else System.out.println("Just Right");
  8: else System.out.println("Too High");
```

1. **Too Low**
2. **Just Right**
3. **Too High**
4. **A NullPointerException is thrown at runtime.**
5. **The code will not compile because of line 7.**
6. **The code will not compile because of line 8.**

8. Which statements, when inserted independently into the following blank, will cause the code to print 2 at runtime? (Choose all that apply.)

```
int count = 0;
BUNNY: for(int row = 1; row <=3; row++)
   RABBIT: for(int col = 0; col <3 ; col++) {
      if((col + row) % 2 == 0)
        _____________________;
      count++;
   }
System.out.println(count);
```

1. **break BUNNY**
2. **break RABBIT**
3. **continue BUNNY**
4. **continue RABBIT**
5. **break**
6. **continue**
7. **None of the above, as the code contains a compiler error.**

9. What is the output of the following code snippet?

```
2: boolean keepGoing = true;
3: int result = 15, meters = 10;
4: do {
5:    meters--;
6:    if(meters==8) keepGoing = false;
7:    result -= 2;
8: } while keepGoing;
9: System.out.println(result);
```

1. **7**
2. **9**
3. **10**
4. **11**
5. **15**
6. **The code will not compile because of line 6.**
7. **The code does not compile for a different reason.** **Answer: “()” line 8**

10. What is the output of the following code snippet? (Choose all that apply.)

```
9:  int w = 0, r = 1;
10: String name = "";
11: while(w < 2) {
12:    name += "A";
13:    do {
14:       name += "B";
15:       if(name.length()>0) name += "C";
16:       else break;
17:    } while (r <=1);
18:    r++; w++; }
19: System.out.println(name);
```

1. **ABC**
2. **ABCABC**
3. **ABCABCABC**
4. **Line 15 contains a compilation error.**
5. **Line 18 contains a compilation error.**
6. **The code compiles but never terminates at runtime.**
7. **The code compiles but throws a NullPointerException at runtime**

11. What is output by the following code? (Choose all that apply.)

```
  1: public class Fish {
  2:    public static void main(String[] args) {
  3:       int numFish = 4;
  4:       String fishType = "tuna";
  5:       String anotherFish = numFish + 1;
  6:       System.out.println(anotherFish + " " +
fishType);
  7:       System.out.println(numFish + " " + 1);
  8: } }
```

1. 4 1

2. 5

3. 5 tuna

4. 5tuna

5. 51tuna

6. The code does not compile.

Answer: Declarated int numFish and it's "4", in anotherFish converted in "5" in the print 5, later space and concat with "tuna".

12. What is the result of the following code?

```
  7: StringBuilder sb = new StringBuilder();
  8: sb.append("aaa").insert(1, "bb").insert(4,
"ccc");
  9: System.out.println(sb);
```

1. abbaaccc

2. abbaccca

3. bbaaaccc

4. bbaaccca

5. An empty line

6. The code does not compile

Answer: With the point "." and the methods are joining, first: aaa, later: bb, ccc.

13. What is the result of the following code?

```
12: int count = 0;
13: String s1 = "java";
14: String s2 = "java";
15: StringBuilder s3 = new StringBuilder("java");
16: if (s1 == s2) count++;
17: if (s1.equals(s2)) count++;
18: if (s1 == s3) count++;
19: if (s1.equals(s3)) count++;
20: System.out.println(count);
```

1. 0

2. 1

3. 2

4. 3

5. 4

6. An exception is thrown.

7. The code does not compile.

Answer: In the 18 line exist a error String and StringBuilder aren`t compare.

14. What is the result of the following code?

```
  public class Lion {
     public void roar(String roar1, StringBuilder
roar2) {
        roar1.concat("!!!");
        roar2.append("!!!");
     }
     public static void main(String[] args) {
        String roar1 = "roar";
        StringBuilder roar2 = new
StringBuilder("roar");
        new Lion().roar(roar1, roar2);
        System.out.println(roar1 + " " + roar2);
  } }
```

1. roar roar

2. roar roar!!!

3. roar!!! roar

4. roar!!! roar!!!

5. An exception is thrown.

6. The code does not compile

15. Which of the following can replace line 4 to print "avaJ"? (Choose all that apply.)

```
3: String puzzle = new StringBuilder("Java");
4: // INSERT CODE HERE
5: System.out.println(puzzle);
```

1. `puzzle.reverse();`
2. `puzzle.append("vaJ$").substring(0, 4);`
3. `puzzle.append("vaJ$").delete(0, 3).deleteCharAt(puzzle.length() - 1);`
4. `puzzle.append("vaJ$").delete(0, 3).deleteCharAt(puzzle.length());`
5. None of the above

Answer: The method reverse() for this name says.

Capitulo 3. Preguntas 1-2-3-6-9-17
Capítulo 4. Preguntas 2-6-9-20
Capítulo 5. Preguntas 1-4-5-6-13