

PROGRAMACIÓN JAVA. Ejemplos de preguntas de la primera parte del examen T3

1. Para cada uno de los siguientes bloques de instrucciones, explica razonadamente lo que muestran por pantalla o en su caso si producen algún tipo de error.

- 1)

```
int x = 1, y = 0;
if (x != 1 && y!=1)
    x=10;
else if(y==0 || x==0)
    x=11;
else if(!(y==1))
    x = -1;
    y = -5;
System.out.println(x + " " + y);
```
- 2)

```
int y = 1, x = 2;
while (y < 4) {
    System.out.println(++x);
    if (x % 2 == 0) {
        System.out.println(y++);
    }
}
```
- 3)

```
int b = 5, m = 1, a = 1;
m += (a > 1 && a < 10) ? ++a : a + a * b / 2;
System.out.println(++m);
```
- 4)

```
double m = 3, n = 2;
switch (m / n) {
    case 1:
        System.out.println("A");
        break;
    case 1.5:
        System.out.println("B");
        break;
    case 2:
        System.out.println("C");
        break;
    default:
        System.out.println("ERROR");
}
```
- 5)

```
boolean a = true;
boolean b = false;
boolean c = false;
int i = 0, j = 4;
if (a || !b && !a || c)
    System.out.println(i++);
else
    System.out.println(j++);
```
- 6)

```
int i, j = 0, suma = 0;
for (i = 1; i <= 10; i += 3) {
    if (i % 2 != 0)
        j = i / 2;
    suma = suma + j;
}
System.out.println(suma);
```
- 7)

```
int n = 2 + 8 * 2 % 3 / 2;
System.out.println(n);
```
- 8)

```
int n = 10 / 3 % 5 + 2 * 2;
System.out.println(n);
```
- 9)

```
int a, b=0, c=3;
a = ( b > 0 && b < 5 ) ? --c : ++c;
System.out.println(a);
```
- 10)

```
int x = 2;
switch(++x){
    case 1: x++;
    case 2: x++;
    case 3: x++;
}
System.out.println(x);
```
- 11)

```
int p = 1, q = 2, r = 3;
if (p > 0 || p > q && r < p + 3)
    System.out.println("uno");
else
    System.out.println("dos");
```
- 12)

```
double x = 7 / 2;
switch(x){
    case 3: x++;
    case 3.5: x++;
        break;
    case 0: x++;
        break;
    default: x++;
}
System.out.println(x);
```
- 13)

```
int a, b=5, c=3;
a = ( b/c > 1 ) ? c-- : c++;
System.out.println(a++);
```

```
14) int x = 2;
    switch (x){
        case 1: x++;
        case 2: x++;
        case 3: x++;
        default: x++;
    }
    System.out.println(x);
```

```
16) int x = 1, y = 0;
    if (x == 1)
        if (y == 0)
            x++;
    else if (y == 0)
        x--;
        y = -1;
    System.out.println(x + " " + y);
```

```
18) int x = 1, y = 0;
    if (x == 1)
        if (y == 1)
            x++;
    else if (y == 0)
        x--;
        y = -1;
    System.out.println(x + " " + y);
```

```
20) int x = 10;
    switch (x / 3) {
        case 1: x++;
        case 2: x++;
            break;
        case 3: x++;
        case 4: x++;
        default: --x;
    }
    System.out.println(x);
```

```
22) int x = 10;
    switch (x / 3) {
        case 7:
        case 4:
        case 3:
        case 1: x++;
        case 5: x++;
            break;
        case 2: x++;
        case 6: x++;
        default: --x;
    }
    System.out.println(x);
```

```
24) int x = 2;
    switch (x){
        case 1: x++;
        case 2: --x;
        case 3: ++x;
        default: x++;
    }
    System.out.println(x);
```

```
15) boolean X = true, Y = false, Z = false;
    if (!X || !Y && !X || Z)
        System.out.println("uno");
    else
        System.out.println("dos");
```

```
17) int x = 1, y = 0;
    if (x == 0)
        if (y == 0)
            x++;
    else if (y == 0)
        x--;
        y = -1;
    System.out.println(x + " " + y);
```

```
19) boolean a = true;
    boolean b = false;
    int i = 0, j = 1;
    if (!a || !i && !a || !j)
        System.out.println(i++);
    else
        System.out.println(j++);
```

```
21) int x = 10;
    switch (x / 3) {
        case 3: x++;
        case 4: x++;
        case 1: x++;
        case 5: x++;
            break;
        case 2: x++;
        case 6: x++;
        default: --x;
    }
    System.out.println(x);
```

```
23) int m = 5, n = 2;
    switch (m / n) {
        case 2:
            System.out.println("A");
            break;
        case 2.5:
            System.out.println("B");
        default:
            System.out.println("C");
    }
```

```
25) String cadena = "teclado";
    switch (cadena) {
        case 'monitor':
            System.out.println("opción 1");
        case 'teclado':
            System.out.println("opción 2");
        case 'ratón':
            System.out.println("opción 3");
        default:
            System.out.println("ERROR");
    }
```

```

26) int x = 10;
    int y = (x < 6 && x != 2 ? --x : x++);
    switch (y / 3) {
        case 1: x++;
        case 2: x++;
            break;
        case 3: x++;
        case 4: x++;
        default: --x;
    }
    System.out.println(x + " " + y);

```

```

27) int i, suma = 0;
    for (i = 10; i > 5; i -= 2) {
        suma = suma + i / 2;
        if (suma % 2 == 0) {
            suma += 2;
        } else {
            suma++;
        }
    }
    System.out.println(suma);

```

```

28) int a = 3, b = 3, c = 4, x = 0;
    b++;
    a /= b;
    c += b;
    if (a <= 1 || a >= 5)
        x = 10;
    else if (b % 3 == 0)
        x = 11;
    else if (c != 0)
        x = 12;
    System.out.print(x);

```

```

29) int x = 3, y = x++;
    switch(x){
        case 2: x++;
            break;
        case 3: x++;
        case 4: x++;
        default: y++;
    }
    System.out.println(x + " " + y);

```

```

30) int y = 1, x = 2;
    while (++y < 5) {
        if (x <= 3) {
            System.out.println(++y);
        }
        System.out.println(x++);
    }
    System.out.println(x + " " + y);

```

```

31) int i = 0, j = 0, suma = 0;
    while (i < 7) {
        i++;
        j = i / 2;
        if (j == 0) {
            j++;
        }
        suma = suma + j;
        System.out.println(i++);
    }
    System.out.println(suma);

```

```

32) int n=1;
    int m=n++;
    int x=(n == 1 || m == 2 ? ++n : n*2);
    switch (x) {
        case 1:
        case 2: n++;
            break;
        case 4: n++;
        case 5: n++;
        default: n = 0;
    }
    System.out.println(++n);

```

```

33) int a = 3, b = 3, c = 4, x = 0;
    a /= b++;
    c += b++;
    if (a == 0)
        x = 1;
    else if (b % 2 == 0 && c % 2 == 0)
        x = 2;
    else if (a == b)
        x = 3;
    else if (b == c)
        x = 4;
    System.out.print(x);

```

```

34) int x = 7 / 4 != 1.75 ? 1 : 2;
    int y = switch (x) {
        case 2 -> 0;
        case 1 -> 3;
        case 3 -> 5;
        default -> -1;
    };
    System.out.println(x);
    System.out.println(y);

```

```

35) int x = 4, y = x++;
    switch (y) {
        case 2 -> System.out.println(++y);
        case 5 -> System.out.println(++x);
        case 1 -> System.out.println("uno");
    }
    System.out.println(x + " " + y);

```

```
36) var x = 3.0 / 2;
    var y = switch (x) {
        case 2 -> x + 1;
        case 1 -> x + 2;
        default -> --x;
    };
    System.out.println(x + " " + y);

37) var x = 10 / 3;
    var y = switch (x) {
        case 2 -> ++x;
        case 1 -> --x;
        case 3 -> x + 3;
    };
    System.out.println(x);
    System.out.println(y);

38) int x = 4, y = ++x;
    switch (y) {
        case 2 -> System.out.println(y + 1);
        case 5 -> System.out.println(x + 1);
        case 1 -> System.out.println("uno");
    }
    System.out.println(x + " " + y);

39) int x = 15 - 6 * 2;
    int y = switch (x) {
        default -> 10;
        case 18 -> 5;
        case 3 -> 8;
        case -3 -> 0;
    };
    System.out.println(x);
    System.out.println(y);

40) int x = 1, y = 2;
    int z = switch (x + y) {
        case 1, 3, 5 -> x - y;
        case 0, 2, 4 -> ++x;
        default -> --y;
    };
    System.out.println(x);
    System.out.println(y);
    System.out.println(z);

41) int x = 1, y = 2;
    int z = switch (++y + x) {
        case 1, 2 -> x - y;
        case 3, 4 -> {
            if(x + y % 3 == 0){
                x += 4;
                yield x * 4;
            }else{
                ++y;
                yield y + x;
            }
        }
        default -> --y;
    };
    System.out.println(x);
    System.out.println(y);
    System.out.println(z);
```