**Boolean worksheet Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

1. What is the Java operator for boolean **AND-ing**?

2. What is the Java operator for boolean **OR-ing**?

3. What are the two possible values of a *boolean* variable?

4. Assume *b*, *p*, and *q* are *boolean*s. Write code that will assign to *b* the result of **ANDing**

*p* and *q*.

5. Assign to the *boolean* variable *w* the result of **OR-ing** the following two things:

A test to see if *x* is positive:

A test to see if *y* equals *z*:

6. Write a test that will return a true if *a* is not equal to *b*. Assume *a* and *b* are integers.

Store the result in *boolean kDog*.

7. Write the answer to #6 another way.

1. Assume that x, y, and z are all int variables. Consider the following code segment:

if (x == 0)

{

if (y == 1)

z += 2;

}

else

{

z += 4;

}

System.out.println (z);

What is printed if x, y, and z are all equal to 0 before the code segment executes?

a) 0

b) 1

c) 2

d) 4

e) 6

**In problems 9-13, assume the following and determine the output:**

int z = 23, x = -109;

double c = 2345.19, v = 157.03;

boolean a = false, s = true;

9. boolean gus = (x > 0) && (c = = v);

System.out.println (!gus);

10. System.out.println (a || s);

11. System.out.println (((-1 \* x) > 0) && !a);

12. boolean r = z = =x;

System.out.println(r || false);

13. System.out.println (z!=x);

14. Fill in the following charts.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **a** | **b** | **(!a && b)** |  | **a** | **b** | **(a || !b)** |
| false | false |  |  | false | false |  |
| false | true |  |  | false | true |  |
| true | false |  |  | true | false |  |
| true | true |  |  | true | true |  |

**In questions 15-19, what is the output?**

15. System.out.println ((true && false) || ((true && true) || false));

16. System.out.println (true && true || false);

17. System.out.println (true || true && false);

18. System.out.println (false || true && false);

19. System.out.println (false && true || false);