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# CS 121 Lab 12

10/23/2014

## Task 1—Boolean expression

Given the following declarations, what is the value of each of the listed boolean expressions?

int a = 5, b = 11;

boolean flag = true;

1. a <= b true
2. (a + 5) >= b false
3. a < b/2 false
4. a != b true
5. !(a == b) true
6. (a < b) || (a > b) true
7. (a < b) && (a > b) false
8. ((a >= b) || !flag) && flag false

## Write down your answers first (your answer should be true or false). Then test each of the above expressions in a Java program. For example, you can test the first one like:

**public** **class** Task1 {

**public** **static** **void** main(String[] args)

{

**int** a = 5, b=8;

**boolean** flag = **true**;

**if**(a<=b)

System.*out*.println("The expression is true");

System.*out*.println("This is the end of the program");

}

}

## If both sentences are printed, that means a<=b is true; if only the last sentence is printed, that mean a<=b is false.

## Task 2—Computing a raise

Download file *Salary.java* from Blackboard Lab12. The file contains a program that how manager decides an employee’s salary. Two input values are read in: an employee’s current salary and a rating of the employee’s performance. The three possible ratings are 3, 2, 1 and they represent “Excellent”, “Good”, and “Poor”. An employee who is rated excellent will receive a 6% raise, one rated good will receive a 4% raise, and one rated poor will receive a 1.5% raise. At last the program computes the raise for the employee based on the performance.

Add three *if* statements to program Salary to make it run as described above.

(No need to use else statement. We will introduce else statement next class. )