Lab 3: Thinking Like a Computer Scientist

Names

Group Member Names:

Questions

Question 1

Write, in Java, a method called `or()` that takes two booleans, x and y, and returns True or False based on the `or` operator. (Model it off the `and()` method in lab.) You can test this on your computers, but you should write it out by hand in the space below.

Question 2

Write, in Java, a method called `not()` that takes a boolean, x, and returns the `not` of that boolean. You can test this on your computers, but you should write it out by hand in the space below.

Question 3

Write a method called `implies()` that performs the `⇒` operation. You may use any methods you have written previously, or you can use the built-in operators..

Question 4

Show, by plugging in `0` and `1` in all possible combinations, that `(x ⇒ y) ∧ (y ⇒ x)` is equivalent to `x ⇔ y`. You may want to make a truth table for this.

Question 5

Using the methods you have already written for this lab, create a `iff` method in Java.

Free Response

Write two questions based off today's lab that are similar to the ones on this worksheet. Up to three good questions will be added to this week's homework, so if you write a good question, you'll have one of the answers for the homework ahead of time!