Expressions

1. What is the value of e after each of the following assignments?
   ```java
   boolean a = true, b = false, c, d = true, e;
   e = a && b;
   e = a || b;
   e = !b;
   e = !a || b;
   e = a && b || c;
   e = a || b && c;
   e = a && b || c && d;
   e = a && !(b || c && !d);
   ```

2. Determine whether the following expressions are true or false. Assume a = 2 and b = 3.
   a. `(a < b) || (b < a)`
   b. `((a == b) && (a * a < b * b)) || ((b < a) && (2 * a < b))`

3. Parenthesize to show the order of operations:
   ```java
   a == b && a * a < b * b || b < a && 2 * a < b
   ```

4. Write an expression using the variables a, b, and c that determines (i.e., is true if):
   a. a is larger than b
   b. b is strictly between a and c
   c. c is the largest of the three variables
   d. all three of the variables are equal
   e. any two of the variables are equal