

CSSE 220 – Object-Oriented Software Development  
 Rose-Hulman Institute of Technology

Worksheet 12

Name (Print): \_\_\_\_\_ Section: \_\_\_\_\_

1. \_\_\_\_\_ is a secondary method that does the real recursive work, while the main (public) method \_\_\_\_\_
2. Complete a Java program that prints all numbers from 1 up to n, using recursion and a helper method.

```

1 public static void countUp(int n){
2 // TODO: call the helper method to start recursion
3
4 }
5 private static void countUpHelper(int current, int end){
6 // TODO: base case
7
8     System.out.println(current);
9 // TODO: recursive case
10    -----;
11 }
12 public static void main(String[] args) {
13     countUp(5); // prints 1,2,3,4,5
14 }
  
```

3. True/False All swing containers use Layout Managers to size and position their components
4. 1) JPanel defaults to \_\_\_\_\_, placing components left-to-right
- 2) JFrame defaults to \_\_\_\_\_ with five regions (NORTH, SOUTH, EAST, WEST, CENTER)
5. What Layout will you use to position components of equal size as a 2x2 table?  
 \_\_\_\_\_
6. Which method tells JFrame to automatically resize itself so that all its components fit their preferred sizes?  
 \_\_\_\_\_