**Re-Cap Lab** Name \_\_\_\_\_\_\_Nick Keirstead\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Answer Sheet**  Period \_\_\_H\_\_\_\_\_\_

*Follow the directions carefully for each section of the exam. Please put all answers on this answer sheet.*

1. Convert the following decimal numbers to binary, octal, and hex:

binary octal hex

a. 15 1111 17 F

b. 121 1111001 171 79

2. For Loops - *indicate the output by circling it* 3. Nested For Loops - *indicate the output by circling it*

57 20

4. Array Mystery

Original Contents of Array: Final Contents of Array:

a. int[] a1 = {7};

arrayMystery(a1); a. {7}

b. int[] a2 = {4, 3, 6};

arrayMystery(a2); b. {4, 2, -2}

5. Expression results:

a. false b. false c. true d. false (b/c postfix-increment operator updates x upon *next* reference of x)

6. Convert to a for loop:

int sum = 0;

for (int i = 1; sum < 10000; i++) {

sum += i;

}

7. Expression results:

a. 5 b. 9.0 c. 7.5

*For the following problems, circle the correct answer:*

8. **False**

9. **True**

10. a. **True** b. **False** c. **True** d. **False**

11. *indicate the output by circling it*

**0**

[Java is pass-by-value, so when max is passed in, a copy of it is used in the function, and that copy is set to value1 or value2. However upon leaving the function’s scope, the copy of max is lost, and the actual value of max (outside the function) is unchanged. To change the actual value of max, one would have to pass a pointer to max (pass by reference), which java doesn’t allow with primitive data types (there are some workarounds, but it’s not simple)].

12. *indicate the output by circling it*

**2 2 4 2 4 8 2 4 8 16 2 4 8 16 32 2 4 8 16 32 64**