

Midterm Practice Exam

Write your answers to the questions below on this sheet. You may **NOT** discuss with others or lookup any information.

1.) Write a call to a method named `blah` with the parameters 5 and 6.

2.) What is wrong with the following code, if anything?

```
public static int doSomething(int input) {  
    switch (input) {  
        case 1:  
            return 2;  
        case 2:  
            return 3;  
    }  
}
```

3.) What is wrong with the following code, if anything?

```
public static int[] qwerty(int[] input) {  
    return input[0];  
}
```

4.) What is the output of the following code?

```
int[] a = new int[]{5, 4, 3, 2};  
for (int x = 0; x < a.length - 1; x++) {  
    System.out.println(a[x] + 1);  
}
```

5.) What is the output of the following code?

```
int x = 3;  
int y = 6;  
int z = 10;  
if (x > 2) {  
    if (y < 8) {  
        if (z > 5) {  
            System.out.println(1);  
        }  
    } else {  
        System.out.println(2);  
    }  
} else {  
    System.out.println(3);  
}
```

6.) What is wrong with the following code, if anything?

```
public static void something(int x) {  
    int x = 27;  
    System.out.println("42");  
}
```

7.) What does the following code print, assuming it is run in jGrasp with jGrasp's "Run" command?

```
public static void useX1(int x) {  
    x = 5;  
    System.out.println(x);  
}  
public static void useX2(int x) {  
    useX1(x);  
    System.out.println(x + 1);  
    x = 8;  
}  
public static void main(String[] args) {  
    int x = 42;  
    useX2(x);  
    System.out.println(x);  
}
```

8.) What is wrong with the following code, if anything?

```
public static String p3(String x) {  
    return x;  
}  
public static void main(String[] args) {  
    p3(5);  
}
```

9.) Convert the following for loop into a while loop.

```
for (int x = 0; x < 10; x++) {  
    System.out.println(x);  
}
```

10.) For each loop below, state the number of iterations each loop will perform. If the loop is an infinite loop, state “infinite”.

- `for (int x = 0; x < 5; x++) { ... }`
- `for (int x = 0; x < 6; x += 2) { ... }`
- `for (int x = 5; x >= 0; x--) { ... }`
- `for (int x = 3; x > 10; x--) { ... }`
- `for (int x = 3; x >= 0; x) { ... }`

11.) Write a method named `randomOneThroughTen` that returns a random number between 1 and 10, inclusive (i.e., both 1 and 10 are themselves possible numbers). Do **not** use a seed value.

12.) What is wrong with the following code, if anything?

```
public static void foo(int x) {  
    if (x == 8) {  
        System.out.println(x);  
    } else {  
        System.out.println(42);  
    }  
    return 12;  
}
```