

Quiz 4, CSCI 150, Fall 2003

Name: _____

1. [5 pts] Suppose the user ran the program at right and typed what is in boldface below.

? **Java Programming**

What would the program then print?

```
import csbsju.cs150.*;

public class Mystery {
    public static void run() {
        IOWindow io = new IOWindow();
        io.print("? ");
        String str = io.readLine();
        String a = str.substring(5, 9);
        String b = str.substring(1, 3);
        io.println(a + b);
    }
}
```

2. [5 pts] Suppose the user ran the program at right and typed what is in boldface below.

2
4
1
3
5

What would the program then print?

```
import csbsju.cs150.*;

public class Mystery {
    public static void run() {
        IOWindow io = new IOWindow();
        int[] a = new int[5];
        int i = 0;
        while(i < 5) {
            a[i] = io.readInt();
            i++;
        }
        i = 0;
        while(i < 5) {
            i = a[i];
            io.println(i);
        }
    }
}
```

3. [10 pts] Complete the program at right so that it reads two lines from the user and displays either "same" or "different" depending on whether they are the same. For example, a user typing the program should see the following, assuming the user types what is in boldface.

? **First**
? **Second**
different

```
import csbsju.cs150.*;

public class SameDifferent {
    public static void run() {
        IOWindow io = new IOWindow();

    }
}
```

4. [10 pts] Suppose the first j elements of an array are in increasing order. In the gap of the Java code below, write Java code to shift up all elements of the array more than t one spot, and insert t in the blank spot.

```
int j = 1;
while(j < a.length) {
double t = a[j];
```

```
    j++;
}
```

Solutions, Quiz 4, CSCI 150, Fall 2003

Statistics

mean	18.435 (424.000/23)
stddev	5.999
median	19.000
midrange	13.750-22.250
#1.	3.65 / 5
#2.	2.52 / 5
#3.	8.43 / 10
#4.	2.83 / 10
+ 1-point bonus	

1. Progav

2

2.

1

4

5

```
import csbsju.cs150.*;
```

```
public class SameDifferent {
    public static void run() {
        IOWindow io = new IOWindow();
        io.print("? ");
        String a = io.readLine();
        io.print("? ");
        String b = io.readLine();
        if(a.equals(b)) {
            io.println("same");
        } else {
            io.println("different");
        }
    }
}
```

3.

```
int j = 1;
while(j < a.length) {
    double t = a[j];
    int i = j;
    while(i > 0 && a[i - 1] > t)
```

4.

```
a[i] = a[i - 1];
i--;
```

```
a[i] = t;
```

```
    j++;
```

```
}
```