

CS 1713 Exam 2 Solutions — Spring 2009

1) (18 points) a) 'L' b) 3 c) -1 d) 9 e) "ayList" f) "ayLi"

2) (5 points)

```
public int myIndexOf(String s, char c) {
    return s.indexOf(c);
}
```

3) (7 points)

```
public int countChar(String s, char c) {
    int count = 0;
    for (int i=0; i<s.length(); i++)
        if (s.charAt(i) == c)
            count++;
    return count;
}
```

4) (12 points)

```
sum = 0;
for (int i=0; i<list.length; i++)
    sum = sum + list[i];
if (list.length > 0)
    average = (double)sum/list.length;
```

5) (7 points)

```
public int countGreaterOrEqual(double[] list, double value) {
    int count = 0;
    for (int i=0; i<list.length; i++)
        if (list[i] >= value)
            count++;
    return count;
}
```

6) (12 points)

```
public double ticketCost(int speed, int speedLimit) {
    int difference = speed - speedLimit;
    if (difference <= 0)
        return 0.0;
    if (difference <= 10)
        return 10.0;
    if (difference <= 20)
        return 100.0;
    return 200.0;
}
```

7) (5 points)

a

7	5
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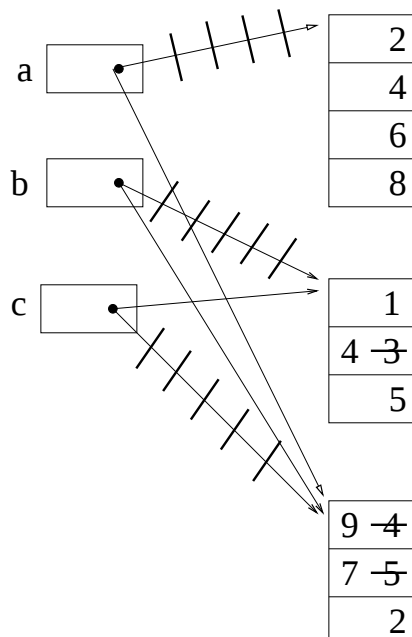
b

10

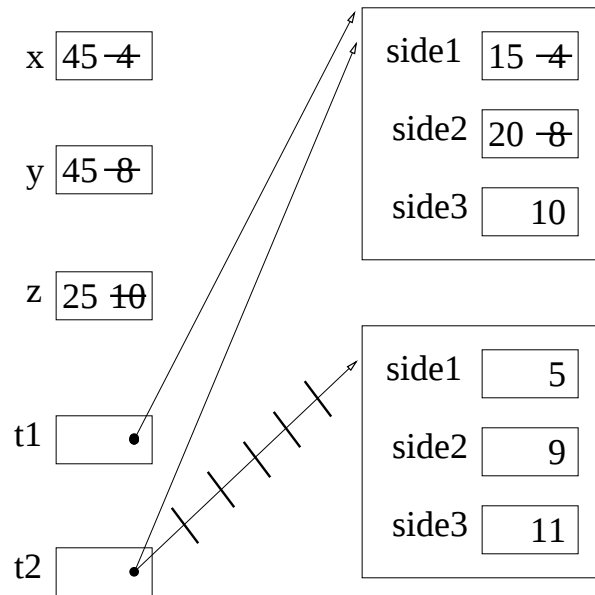
c

17	5
----	--------------

8) (7 points)



9) (7 points)



10) (5 points)

```
Random rand = new Random();
int count = 0;
int value;
for (int i=0;i<1000;i++) {
    value = rand.nextInt(6) + rand.nextInt(6) + 2;
    if (value == 7)
        count++;
}
System.out.println("Number of times a 7 was rolled out of 1000: "+count);
```

11) (5 points)

```
public String remove(String s1, String s2) {
    int start = s1.indexOf(s2);
    if (start == -1)
        return s1;
    return s1.substring(0,start) + s1.substring(start + s2.length());
}
```

12) (5 points)

```
public void displayList(int[] list) {
    System.out.print("[");
    if (list.length > 0)
        System.out.print(list[0]);
    for (int i=1; i<list.length; i++)
        System.out.println(", ",list[i]);
    System.out.print("]");
}
```

13) (5 points)

```
5 6 7 8 9
6 7 8 9 10
7 8 9 10 11
8 9 10 11 12
9 10 11 12 13
```