CS 1713 Exam 1 Solutions — Spring 2007

1) **(12 points)**   a) 3   b) 3.75   c) 7.5   d) 15.0   e) 3   f) 3.8

2) **(9 points)**
```
int organicMultiplier = 1;
if (organic)
  organicMultplier = 2;
if (size == 1)
  price = organicMultiplier*1.0;
else if (size == 2)
  price = organicMultiplier*1.5;
else if (size == 3)
  price = organicMultiplier*1.75;
```

3) **(7 points)**
```
Scanner scan = new Scanner(System.in);
int value;
do {
   System.out.println("Enter an integer between 1 and 5");
   value = scan.nextInt();
} while (value < 1 || value > 5);
System.out.println("The value entered is "+value);
```

4) **(10 points)**
   a)
```
   for (int i=0; i < a.length; i++)
     System.out.print(a[i] + " ");
   System.out.println();
```
   b)
```
   for (int i=0; i < a.length; i++)
     if (i == a.length - 1)
        System.out.println(a[i]);
     else
        System.out.print(a[i] + ", ");
```

5) **(10 points)**
```
public double findAverage(int[] array) {
  double sum = 0.0;
  if (array.length == 0)
     return sum;
  for (int i=0;i<array.length;i++)
     sum = sum + array[i];
  return sum/array.length;
```

6) **(10 points)**
```
   Rectangle rect = new Rectangle(7,10);
   System.out.println("The area is "+rect.getArea()+
                      " and the perimeter is "+rect.getPerimeter());
```

7) **(18 points)**   a) 'i'   b) 10   c) -1   d) 15   e) "est."   f) "is is a te"

8) **(8 points)**
```
public int findLastA(String s) {
   for (int i = s.length-1; i >= 0; i--)
      if (s.charAt(i) == 'A')
         return i;
   return -1;
}
```
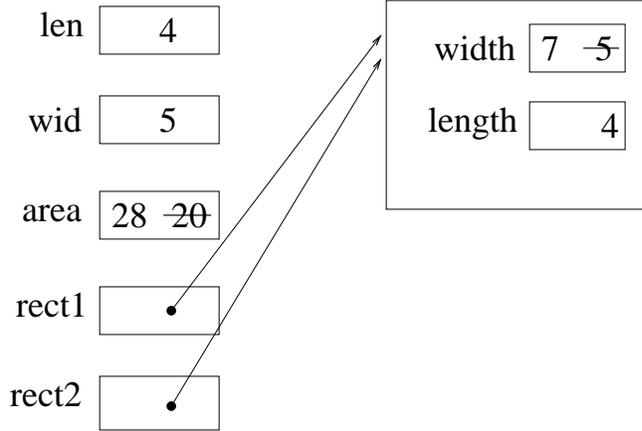
9) (4 points)

a | 7.4 ~~4.0~~

b | 1.0

c | 4.0

10) (6 points)

len | 4

wid | 5

area | 28 ~~20~~

rect1 | •

rect2 | •

width | 7 ~~5~~

length | 4

11) (6 points)

a | •

b | •

c | •

2
1 ~~4~~
6
8

3
5
9 ~~7~~