CompSci 101 SS C – Terms Test 2003
Answers to question 1, 2, 10 and 11

QUESTION 1

a) 5.0
b) Total = 51.5
c) Total = " + 5 + 1.5
d) n\
\n
e) 100
f) 9
g) 7
h)
```
int rand = ((int)(Math.random() * 50) * 2) + 1;
System.out.println(rand);
```

QUESTION 2

4 syntax errors:

1) public Q2 {
the keyword class is missing
2) it c;
it should be int
3) System.out.print(a + ", " b + " and " + c);
missing concatenation operator before the b
4) System.out.println(" is " + average)
missing semicolon at the end of the statement

1 logic error:

5) double average = (a + b + c) / 3.0;
parentheses missing around a + b + c

QUESTION 3

a) true
b) true

QUESTION 4

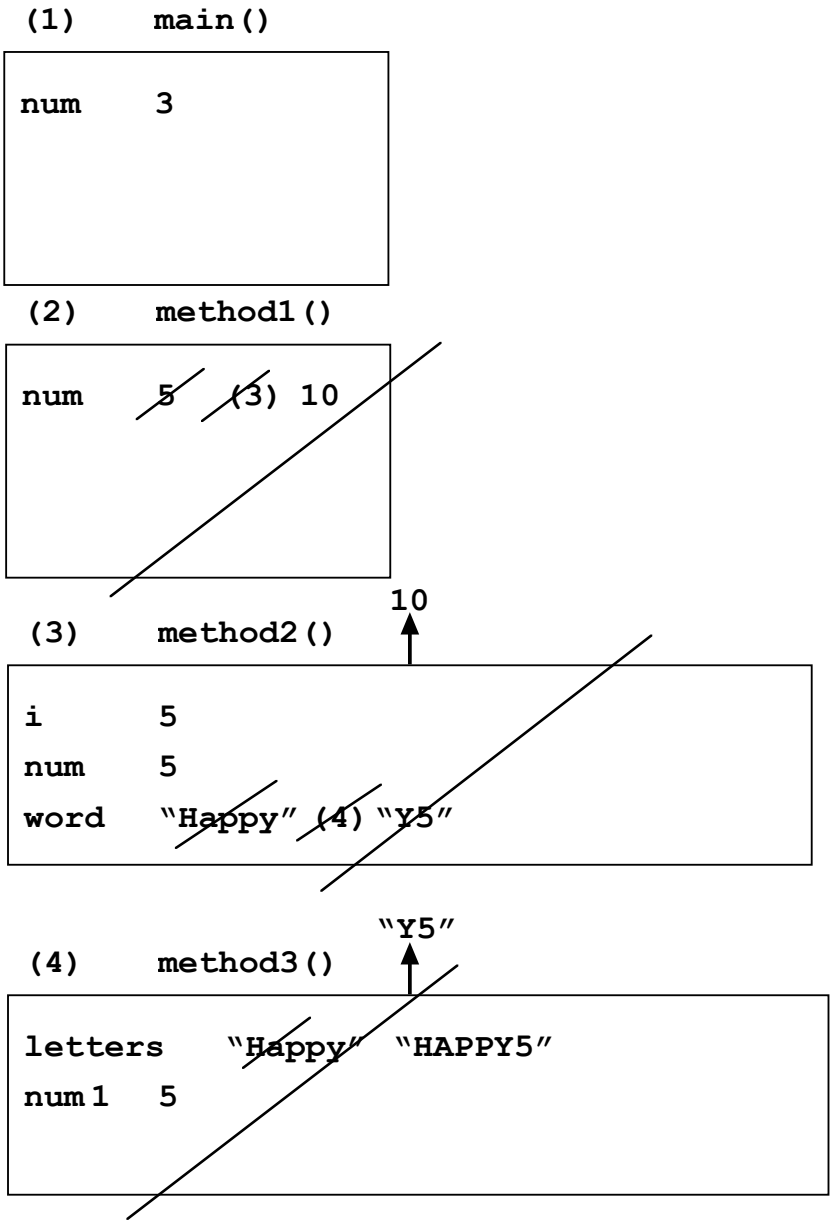
```
> java Q4
line 5
line 8
line 10
```

QUESTION 5

> java Q5
U
UG
UGH

QUESTION 6

> java Q6
3. letters: HAPPY5
2. word: Y5
1. num: 10
main() num: 3



QUESTION 7

```
private static void printNumbers (int num1, int num2){
   int startNum, endNum;
   if (num1 < num2){
     startNum = num1;
     endNum = num2;
   }
   else {
     startNum = num2;
     endNum = num1;
   }

   while (startNum <= endNum){
      System.out.print(startNum + " ");
      startNum++;
   }
   System.out.println();
 }
```

QUESTION 8

```
private static int getEndDigits(String digitStr,  int howMany){
   int len = digitStr.length();
   if (len < howMany)
     return 0;

   int index = len - howMany;

   String numString = digitStr.substring(index);
   int numberToReturn = Integer.parseInt(numString);

   return numberToReturn;
}
```

QUESTION 9

```
> java Q9
point: 6,5
point: 9,8
```

QUESTION 10

```
        public static int numberTrue(boolean[] bools) {
                int numTrues = 0;
                for (int i = 0; i < bools.length; i++)
                        if (bools[i])
                                numTrues++;
                return numTrues;
        }
```

QUESTION 11

```
public class Car {

	private String type;
	private int speed;

	public Car(String type, int speed) {
		this.type = type;
		this.speed = speed;
	}

	public void changeSpeed(int diff) {
		speed += diff;
	}

	public String getName() {
		return type;
	}

	public boolean sameSpeedAs(Car other) {
		return other.speed == speed;
	}

	public String toString() {
		if (speed == 0)
			return type + " not moving";
		else
			return type + " moving at " + speed + " km/h";
	}

}
```