

Computer Science 2310

Homework 1

(Turn in the answers on separate paper, folded lengthwise with your name on the outside. There are questions on both front and back.)

1. Compute the value of each expression. Be sure to use proper syntax according to the type of the result. (3 points each).
 - a. $14.0 / 4 / 2$
 - b. $12 - 9/2 + 6$
 - c. $12 / (7+11) * 3.0$
 - d. $3.0 * 12 / (7+11)$
 - e. $24 / 6 \% 3$
2. Write a legal Java expression to compute $A - 4BC(D-3) + 3C$ where A, B, C, and D all represent variables (6 points).
3. Consider the following Java code segment

```
int n1, n2, n3;  
String s1,  
Scanner keyboard = new Scanner(System.in);
```

```
n3= keyboard.nextInt();  
n2= keyboard.nextInt();  
s1 = keyboard.nextLine();  
n3 = keyboard.nextInt();  
n1 = keyboard.nextInt();
```

Suppose also that the following input is typed in at the keyboard:

```
37 48 59  
70 81 92  
103 114 125
```

What will be the values stored in the variables if the code segment is executed using the given keyboard input? (8 points)

4. Given the following initial Java code segment

```
int age = 43;  
String name = "John Doe";
```

Specify two different ways using `System.out.print` and `System.out.println` for outputting the message *43 years old is the age of John Doe*.

that makes use of the two variables `age` and `name`. In one of your solutions, you should generate the entire string using one statement via `System.out.println`. The other solution should make use of both `System.out.print` and `System.out.println` in multiple statements. (10 points)

5. On paper, write a Java code segment that reads in four whole numbers and outputs their average. The output should include the decimal portion of the average.

The code segment should ask for the input of the four numbers. These numbers should be input as *int* values. The code segment then outputs the average.

Sample interaction is shown below: (user input is underlined)

Enter the four numbers to be averaged.

29 7 8 11

The average is 13.75

Note your code segment should work for *any* legal input, not just the one example. (15 points)

DUE DATE: September 22 (no late homeworks accepted)