

## Quiz 3 - CS 139

1 pt

1. Which of the following is **not** a valid assignment statement, assuming all variables have been declared and initialized with an appropriate data type?

- a) `total = sum + next;`
- b) `keyboard.nextInt() = value;`
- c) `count = count + flag;`
- d) `rate = 10.2;`

WhichCar.java:44: possible loss of precision

```
found    : double
required: int
    cost = totalCost;
```

1 pt

2. What is the possible cause of this error?

- a. `cost` has not been declared
- b. `cost` has not been initialized
- c. `totalCost` has not been initialized
- d. `cost` is an `int` and `totalCost` is a `double`

1 pt

3. On what line number in the source file does this error occur?

- a. Line 0
- b. Line 15
- c. Line 44
- d. It is impossible to tell from the error message provided

12 pts

4. **Evaluate the expression:** Fill in the chart below with the result of each of the Java expressions. Write **INVALID** in both boxes if there is an invalid expression (one that will not compile). All decimal calculations should be carried out to 2 places only. **You may not use a calculator.**

	Expression	Data Type of Result	Result
1.	<code>69 % 2</code>		
2.	<code>(double) 79 / 2</code>		
3.	<code>(6.5 / 5)</code>		
4.	<code>(9 / 2) * 3.0</code>		
5.	<code>10 + 8 + " equals " + 11 + 7</code>		
6.	<code>(double) (79 / 2)</code>		

1 pt

5. Declare a String variable named state. Then initialize the variable so it references an object with the string "Virginia".

2 pt

6. Do the following statements compute the average of double variables a, b, and c? Why or why not? Explain

```
double average;  
average = a + b + c / 3.0;
```

1 pt

7. Which of the following assignments are valid, given that the following variables are declared with the associated type (NOTE: these are not declaration statements):

```
int cost, double taxRate, float interestRate, long count
```

- a) `interestRate = taxRate;`
- b) `cost = taxRate;`
- c) `count = cost;`
- d) `cost = count;`

1 pt

8. Enclosing a group of statements inside a set of braces creates a

- a) block of statements
- b) boolean expression
- c) loop
- d) Nothing, it is just for readability