

**Quiz 1**

Name \_\_\_\_\_ Section \_\_\_\_\_

1— If you want to store the concept of `false` which variable type would you use?

- a. `int`
- b. `String`
- c. `char`
- d. `boolean`

2— If you wanted to store your name in a data type, which of these would be best?

- a. `int`
- b. `String`
- c. `char`
- d. `boolean`

3— What does a method that returns nothing put as its return type?

- a. `void`
- b. `null`
- c. `""`
- d. `boolean`

4— Which of the following is the Java assignment operator (assigns a value to a variable)?

- a. `==`
- b. `:=`
- c. `=`
- d. `!=`

5— Which of the following represents the proper typical structure of a method?

- a. 

```
return-type arguments ( method-name );  
    statement;  
    statement;  
    . . . ;  
}
```
- b. 

```
method-name ( arguments ) {  
    statement;  
    statement;  
    . . . ;  
}
```
- c. 

```
return-type method-name ( arguments ) {  
    statement;  
    statement;  
    . . . ;  
}
```
- d. 

```
method-name [ arguments ] {  
    statement;  
    statement;  
    . . . ;  
}
```

6— Boolean logic, evaluate the following statements to true or false:

```
cat = true;  bird = false;  dog = true;  fish = false;
```

```
cat and dog
```

```
bird or dog or fish
```

```
( cat or fish ) and ( bird or fish )
```

```
( not cat ) and ( not dog or fish or cat )
```

```
( not cat ) or ( not dog or fish or cat )
```

```
( cat or dog or bird or fish ) and dog
```

```
( ( not cat ) and ( not fish ) ) and ( dog or fish )
```

7— Given a string, return true if the first instance of "x" in the string is immediately followed by another "x".

```
doubleX("axxbb") → true
```

```
doubleX("axaxax") → false
```

```
doubleX("xxxxx") → true
```

```
boolean doubleX(String str) {
    boolean temp = false;
    int firstX = str.indexOf( 'x' );

    if( <BLANK> ) {
        temp = true;
    }

    return temp;
}
```

What **if-condition** should be placed where <BLANK> so the method works as intended?

8— Why do the following lines of code not compile? (Explain in one sentence each)

```
float return;
```

```
System.println("Hello again!");
```

```
if( x == y ) [  
    boolean myBoolean = true;  
]
```

9— You have a green lottery ticket, with ints a, b, and c on it. If the numbers are all different from each other, it returns 0. If all of the numbers are the same, it returns 20. If two of the numbers are the same, it returns 10.

```
greenTicket(1, 2, 3) → 0
```

```
greenTicket(2, 2, 2) → 20
```

```
greenTicket(1, 1, 2) → 10
```

However! It has **three** errors. Correct them!

```
int greenTicket(int a, int b, int c) {  
    int returnValue = 0;  
  
    if( a != b && b != c ) {  
        returnValue = 0;  
    }  
  
    if( a == b || b == c ) {  
        returnValue = 20;  
    }  
  
    if( ( a == b && b != c ) ||  
        ( a == c && b != c ) ||  
        ( b == c && b != c ) ) {  
        returnValue = 10;  
    }  
}
```

10— Write a method that takes three `Strings` and **returns** a number which is the count of those `Strings` which contain (*anywhere*) the word “phone”.

```
“this” “one” “is not”           => 0  
“phone” “what is a phone” “hi”  => 2  
“text me on my phone phone” “1” “x” => 1
```

## 11— The array question.

Given an array of ints, swap the first and last elements in the array. Return the modified array. The array length will be at least 1.

```
swapEnds({1, 2, 3, 4})      => {4, 2, 3, 1}  
swapEnds({1, 2, 3})        => {3, 2, 1}  
swapEnds({8, 6, 7, 9, 5})  => {5, 6, 7, 9, 8}
```

```
int [] swapEnds( int [] inputArray ) {
```

```
}
```

12— One more question in honor of the government shutdown...

What does the following code fragment (which compiles) print out:

```
String name;
int counter = 0;
boolean startWord;

name = "Barack H. Obama";
startWord = true;
while( counter < name.length() ) {
    if (startWord) {
        System.out.print(name.charAt(counter));
    }
    if (name.charAt(counter) == ' ') {
        startWord = true;
    } else {
        startWord = false;
    }
    counter = counter + 1;
}
```