Quiz Review

What is the String returned by ("hello" + 3 + 7) ?
   "hello".concat(3).concat(7)
   hello37

What attribute or method in the String class returns the number of characters in the String?
   string.length( )

How many bytes is a *double*?
   floats and ints are 4 bytes
   8 bytes

Refer to the code for the next two questions:

```
int a = 10, b = 3, t;
for(int i = 1; i <= 3; i++){
    t = a;
    a = i + b;
    b = t - i;
}
```

a	b	t
10	3	0
4	9	10
11	2	4
5	8	11

What is the value of "a" after the code completes?
   5
What is the value of "b" after the code completes?
   8

The following three questions refer to this code:

```
int switchMethod(int x, int y) {
    switch( x * y ) {
        case 0:
            return 0;
        case 2:
        case 3:
            return y / 2;
        case 1:
        default:
            break;
    }
    return x / 2;
}
```

What is returned by switchMethod(1,1)?
   1 / 2 ⟹ 0

What is returned by switchMethod(2,0)?
    0

What is returned by switchMethod(1,3)?
    3 / 2 ⇒ 1

The following two questions refer to this code:

```
int a = 6, b = 3, sum = -1;
while(a + b < 14) {
    sum += a % b;
    a++;
    b+=2;
}
```

a	b	sum
6	3	-1
7	5	-1
8	7	1

What is the value of *sum* after the code is run?
    1

How many times does the loop run?
    2

```java
public static double averageValueOf(int[ ] array) {
    if(array.length == 0) {
        return 0;
    }

    double average = 0;
    for(int i = 0; i < array.length; i++){
        average += array[i];
    }

    return average / array.length;
}
```

averageValueOf Rubric
- loop that iterates through the array
- a variable that keeps track of the sum or average
- that variable has array values added to it
- average is computed properly
- returns 0 if array has length 0
- returns average otherwise

FRQ 2
Public vs private, also explain getters and setters
Public attributes and methods can be accessed from anywhere, whereas
private methods and attributes have their scope limited to inside the
class.

Getters and setters are used to provide an abstraction when accessing
attributes of a class - allows implementation of the class to be changed
later, without having to rewrite any other code outside of the class. Allow
for additional functionality when getting/setting.

FRQ 3
**What is toString( ) for, and what does it return if not explicitly written
in a Class**
Provides an easy to read description of an Object and it's state.
toString() allows Objects to be easily concatenated with Strings.

Would return Class's name and the memory address of the Object.