

String:

.length() returns  
# of characters

String s = "long";  
                              
                  4 characters

s.length() => 4

CS idiom:

"expression which returns"  
" " which has the value "

vs

"method which returns"  
has return statement

```
String s1 = "I love mac and cheese.",
      s2 = "I hate fish and chips.",
      s3 = ... ;
```

vii) `s1.compareTo(s2)`  
 positive int  
 'l' > 'h'

viii) `s1.equals(s2)`

3. 15 points The method `ranMonth` returns a random integer  $r$  such that  $1 \leq r \leq 12$ . Write the body of `ranMonth` below, using `Math.random()`.

```
public int ranMonth()
{
```

```
    double num = Math.random();
    int month = 12;
    int randomMonth =
    *      (int)((num * month) +
    return randomMonth, 1);
}
```

```

// count occurrences of seq
// in s
public int countSeq (
    String s, String seq)
{
    if (seq.length() == 0)
        return -1;
    int count = 0;
    int psn = s.indexOf(seq);
    while (psn >= 0)
    {
        count++;
    }
    return count;
}

```

s: 

ab	ab	ab	ab
----	----	----	----

seq "ab"

```

psn = s.indexOf(seq);
if found
    increment count
    s = s.substring(psn +
                    length of seq)

```