

Section 12: Strings

Exercise Solutions:

- 1) What do the following lines of code print to the console? **3 blind mice**

```
String word = "ice";
println( word.length() + " bl" + word.charAt(0) + "nd m" + word );
```

- 2) Fill in the blanks in the Processing code for the function `frequency()`, which returns the number of times that a particular `char c` appears in a `String s`. For example, `frequency("missus", 's')` returns 3.

```
int frequency(String s, char c) {
    int count = 0;
    for( int i = 0; i < s.length(); i = i + 1 ) {
        if( s.charAt(i) == c ) {
            count = count + 1;
        }
    }
    return count;
}
```

- 3) Write Processing code below to create the string `"1, 2, 3, 4, 5, 6, 7, 8, 9"` using a for-loop and store it in the variable `result`. Pay special attention to the spaces and commas!

```
String result = "";
for(int i = 1; i < 9; i = i + 1) {
    result = result + i + ", ";
}
result = result + "9";
```

- 4) After the following code is executed, what string is stored in `msg`? **"happy"**

```
char[] alphabet = {'a', 'b', 'c', ..., 'x', 'y', 'z'}; // assume all 26 written out
int[] nums = {7, 0, 15, 15, 24};
String msg = "";
for( int i = 0; i < nums.length; i = i + 1 ) {
    msg = msg + alphabet[ nums[i] ];
}
```

Notice that we first access `nums[i]`, which gives us an integer. We then use that integer as the index with which we access the `alphabet[]` array. Concatenating these characters to our string `msg` one-by-one in the for-loop, we end up with "happy".