

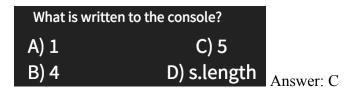
## **Data Types**

-String: anything contains a letter, <u>MUST</u> use quotes. (For example: "apple" is a string)

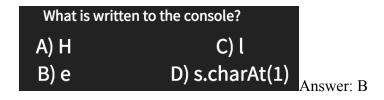


Here, s contains a string. Length: s.length = 5. So s is a string now. (**length is a property, NOT** a function)

(I-clicker Problem 1)



(I-clicker Problem 2)

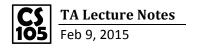


```
1 var s="Hello";
2 console.log(s.charAt(0));
3 Native Chrome JavaScript.
Copyright (c) 2013 Google Inc
```

Index of 'H' in "Hello" is 0

```
1 var s="Hello";
2 console.log(s.charAt(1));
3 Native Chrome JavaScript.
Copyright (c) 2013 Google Inc
```

Index of 'e' in "Hello" is 1



-Loops: repeat block in SCRATCH

```
1 - \text{for (var i = 0; i < 20; i++)} 
                                                                            Run Session
console.log("illinois");
}
                                                        Native Chrome JavaScript.
                                                        Copyright (c) 2013 Google Inc
                                                        illinois
                                                        illinois
                                                        illinois
                                                        illinois
                                                        illinois
                                                        illinois
       Repeat print "illinois" for 20 times
                                                        illinois
                                                        illinois
```

Repeat printing "Illinois" for 20 times, 'i' changes value at each time from 0 to 1, at each time, it changes by 1.

```
1 var s = "Hello";
                                                                                  Run Session
                                                            Native Chrome JavaScript.
  2 - for (var i=0; i<s.length;i++) {
  3
          var c = s.charAt(i); //1st run: i==0, c==H
                                                            Copyright (c) 2013 Google Inc
  4
                             // 2nd run: i==1, c==e
  5
                             //3rd run: i==2, c==1
                                                            H
                             //4th run: i==3, c==l
  6
                                                            e
1
                             //5th run: i==4, c==0
  7
  8
          console.log(c);
                                                            1
  9 }
                                                            0
 1 var s = "Hello";
                                                                                 Run Session
 2 var vowels=0;
                                                           Native Chrome JavaScript.
 3 \neq \text{for (var i=0; i<s.length;i++)} 
                                                           Copyright (c) 2013 Google Inc
 4
        var c = s.charAt(i); //1st run: i==0, c==H
 5
                            // 2nd run: i==1, c==e
 6
                            //3rd run: i==2, c==1
 7
                            //4th run: i==3, c==l
                                                                   There 2 vowels in "Hello"
 8
                           //5th run: i==4, c==0
 9
10
        //Counting how many vowels in "Hello"
11
        if (c=='a') {vowels=vowels+1;}
12
        if (c=='e') {vowels=vowels+1;}
        if (c=='i') {vowels=vowels+1;}
13
        if (c=='o') {vowels=vowels+1;}
14
15
        if (c=='u') {vowels=vowels+1;}
16 }
17 console.log(vowels);
```