Data Types

- String: anything contains a letter, **MUST** use quotes. (For example: “apple” is a string)

```
var s = "Hello";
```

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)

![Code snippet](image)

Answer: C

(I-clicker Problem 2)

![Code snippet](image)

Index of ‘H’ in “Hello” is 0

Index of ‘e’ in “Hello” is 1
Loops: repeat block in SCRATCH

Repeat printing “Illinois” for 20 times, ‘i’ changes value at each time from 0 to 1, at each time, it changes by 1.

```
for (var i=0; i<20; i++) {
  console.log("Illinois");
}
```

Repeat printing “Illinois” for 20 times, ‘i’ changes value at each time from 0 to 1, at each time, it changes by 1.

```
var s = "Hello";
for (var i=0; i<s.length;i++) {
  var c = s.charAt(i); // 1st run: i=0, c=H
  // 2nd run: i=1, c=E
  // 3rd run: i=2, c=L
  // 4th run: i=3, c=0
  // 5th run: i=4, c=0
  console.log(c);
}
```

```
var s = "Hello";
var vowels=0;
for (var i=0; i<s.length;i++) {
  var c = s.charAt(i); // 1st run: i=0, c=H
  // 2nd run: i=1, c=E
  // 3rd run: i=2, c=L
  // 4th run: i=3, c=0
  // 5th run: i=4, c=0
  if (c=='a') {vowels=vowels+1;}
  if (c=='e') {vowels=vowels+1;}
  if (c=='i') {vowels=vowels+1;}
  if (c=='o') {vowels=vowels+1;}
  if (c=='u') {vowels=vowels+1;}
}
console.log(vowels);
```

There are 2 vowels in "Hello"