

CS 105

Week 1

Statement

move 10 steps

Statement



```
moveForward(10) ;
```

Statement

```
moveForward(10) ;
```

Statement

```
moveForward(10);
```

All statements in JavaScript end
with a **semicolon**.

Conditional



Conditional



```
if ( _____ )  
{  
  
}
```

Boolean (aka “bool”)

Boolean (aka “bool”)

Anything that has an answer of
either YES or NO.

Boolean (aka “bool”)

Anything that has an answer of
either **TRUE** or **FALSE**.

Boolean (aka “bool”)

Anything that has an answer of either **TRUE** or **FALSE**.



Boolean (aka “bool”)

Anything that has an answer of either **TRUE** or **FALSE**.

key pressed?

mouse down?

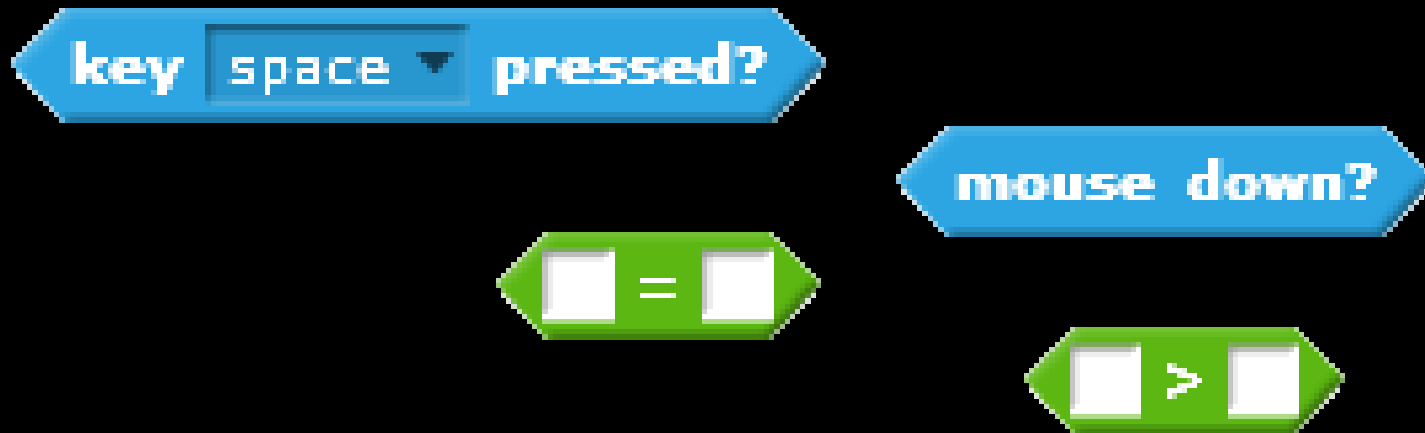
Boolean (aka “bool”)

Anything that has an answer of either **TRUE** or **FALSE**.



Boolean (aka “bool”)

Anything that has an answer of either **TRUE** or **FALSE**.



Conditional + Boolean

Conditional + Boolean



+



Conditional + Boolean



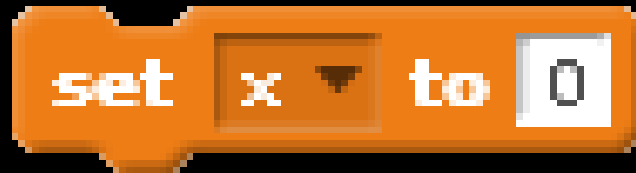
Conditional + Boolean



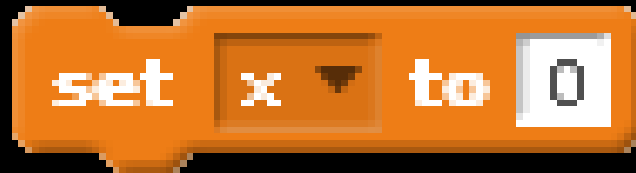
```
if ( 5 > 3 )  
{  
  
}
```

Variables

Defining a Variable



Defining a Variable



```
var x = 0;
```

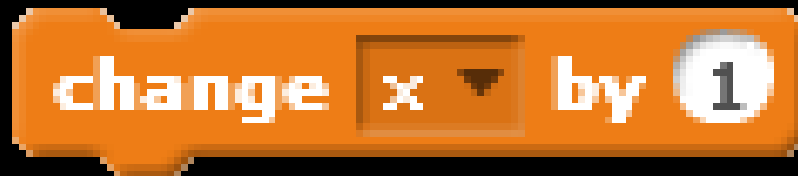
Defining a Variable

```
var x = 0;
```

- You **must** **define** a variable (using **var**) the first time you use the variable.
- After it is defined, you should never use **var** with it again.

Using a Variable

You can **set** the value of the variable by using an equal sign.



```
x = x + 1;
```

Using a Variable

You can do addition, subtraction, multiplication, and division.

x = x + 1;

x = x - 2;

x = x * 4;

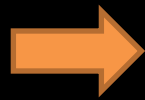
x = x / 10;

Variable Example

➡ `var a = 10;`

Variable Example

```
var a = 10;
```

 `a = a + 5;`

Variable Example

```
var a = 10;
```

```
a = a + 5;
```

```
→ a = a / 3;
```

Variable Example

```
var a = 10;
```

```
a = a + 5;
```

```
a = a / 3;
```

```
→ a = a * 10;
```

Variable Example

```
var a = 10;
```

```
a = a + 5;
```

```
a = a / 3;
```

```
a = a * 10;
```

```
➔ if (a > 20)  
  {  
    a = a - 20;  
  }
```

Variable Example

```
var a = 10;
```

```
a = a + 5;
```

```
a = a / 3;
```

```
a = a * 10;
```

```
if (a > 20)
```

```
{
```

```
→ a = a - 20;
```

```
}
```

Conditional + Boolean + Variable

```
if (x < 3)  
{  
  
}
```

Conditional + Boolean + Variable

```
if (x < 3)  
{  
  
}
```

```
if (x > 3)  
{  
  
}
```


Conditional + Boolean + Variable

```
if (x < 3)
```

```
{
```

```
}
```

```
if (x > 3)
```

```
{
```

```
}
```

```
if (x == 3)
```

```
{
```

```
}
```

Conditional + Boolean + Variable

```
if (x < 3)
```

```
{
```

```
}
```

```
if (x > 3)
```

```
{
```

```
}
```

```
if (x == 3)
```

```
{
```

```
}
```

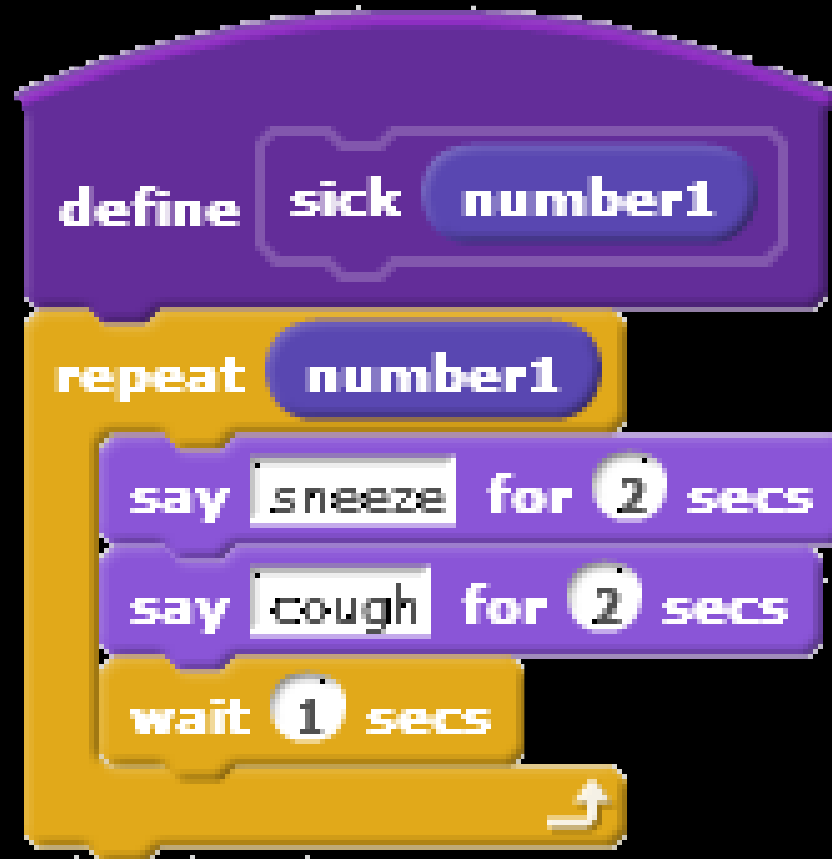
```
if (x != 3)
```

```
{
```

```
}
```

Functions

Function



Function



```
function countUp(value)
{

}
```

Function

```
function countUp(value)
{

}
```

- In JavaScript, functions often **return** a result.

Function

```
function countUp(value)
{
    value = value + 1;
    return value;
}
```

Function

```
function countUp(value)
{
    value = value + 1;
    return value;
}
```


Function

```
function countUp(value)
{
    value = value + 1;
    return value;
}
```

```
/**
 * Increases the value of the
 * variable passed in by one.
 *
 * @param {Integer} value
 *     Variable to count up.
 *
 * @return {Integer}
 *     The value of the variable
 *     passed in increased by one.
 */
```

```
function countUp(value)
{
    value = value + 1;
    return value;
}
```

Function

```
function myFunc(c1, c2, c3)
{
    var result = c1 + c2 + c3;
    return result;
}
```

Cheat Sheet

Statements

```
_____;
```

Variables

```
var x;
```

```
x = x + 1;
```

Functions

```
function name(p1, p2)
```

```
{  
    ...  
    return _____;  
}
```

Conditionals

```
if (x < 3)
```

```
{
```

```
...
```

```
}
```

Booleans

```
n > 0
```

```
n < 0
```

```
n == 0
```

```
n != 0
```

Plain Text Editors

- To write JavaScript, you need a **plain text editor**.
 - Rule of thumb: if you can make the **font bold**, it is not a plain text editor.
- **Windows**: Notepad, Notepad++, Eclipse, ...
 - **NOT** Wordpad, **NOT** Microsoft Word
- **Mac**: TextWrangler, Eclipse
 - **NOT** Writer, **NOT** TextEdit