

Pre-class Drill

Write a function that takes in two numbers and outputs the max (the greater of the two numbers).

Ex:

Input: 1, 2

Output: 2

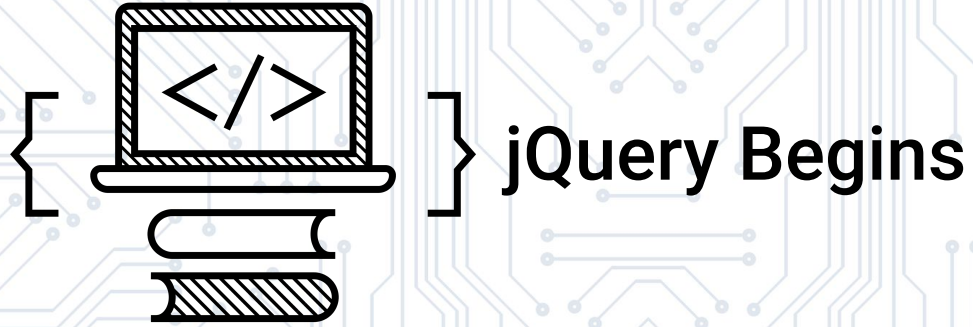
Input: 6, -4

Output: 6

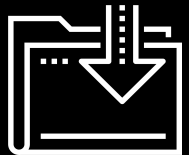
Input: 3.4, 2

Output: 3.4





Web Development Boot Camp
Lesson 4.1



Admin Items

Array building

We can dynamically add elements to an array by using
`array.push()`

```
<script>
```

```
const myFavoriteFoods = [];
```

```
myFavoriteFoods.push('Italian');  
myFavoriteFoods.push('Seafood');  
myFavoriteFoods.push('Mexican');
```

```
console.log(myFavoriteFoods);
```

```
// ['Italian', 'Seafood', 'Mexican'];
```

```
</script>
```

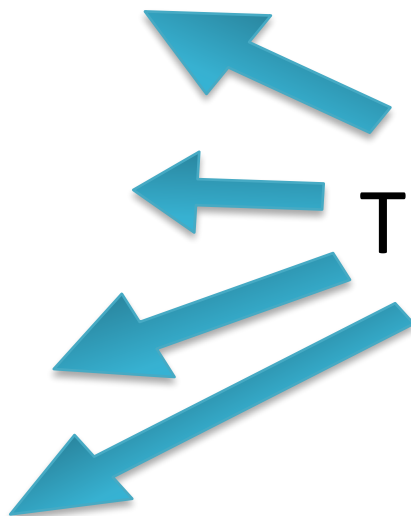
Terminology: Functions vs Methods

This is a function:

```
// Logs all of our car's current stats to the console.  
function reWriteStats() {  
  console.log("Make: " + car.make);  
  console.log("Model: " + car.model);  
  console.log("Color:" + car.color);  
  console.log("Mileage: " + car.mileage);  
  console.log("Is Working: " + car.isWorking);  
  console.log("-----");  
}
```

Terminology: Functions vs Methods

```
var car = {  
  make: "Honda",  
  model: "Fit",  
  color: "Blue Raspberry",  
  mileage: 3000,  
  isWorking: true,  
  
  driveToWork: function() {  
    alert("Old Mileage: " + this.mileage);  
  
    this.mileage = this.mileage + 8;  
  
    alert("New mileage: " + this.mileage);  
  },  
  
  driveAroundWorld: function() {  
    alert("Old Mileage: " + this.mileage);  
  
    this.mileage = this.mileage + 24000;  
  
    alert("New Mileage: " + this.mileage);  
    alert("Car needs a tuneup!");  
  
    this.isWorking = false;  
  },  
  
  getTuneUp: function() {  
    alert("Car is ready to go!");  
    this.isWorking = true;  
  },  
  
  honk: function() {  
    alert("Honk! Honk!");  
  }  
};
```



These are methods

Terminology: Functions vs Methods

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  make: "Honda",  
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```

car.model = "Fit"

These are methods

Terminology: Functions vs Methods

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  honk: function() {  
    alert("Honk! Honk!");  
  }  
};
```



car.model = "Fit";



These are methods

car.honk();

Functions: ES5 vs ES6

```
function add(a, b) {  
  return a + b;  
}  
add(1, 2); // --> 3 //function declaration
```

```
var add1 = function(a, b) {  
  return a + b;  
}  
add1(2, 3); // --> 5 //function expression
```

Functions: ES5 vs ES6

```
const adder = function() {  
  
}
```

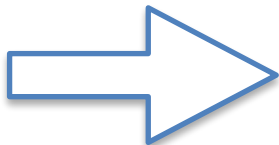
```
const adder = () => {  
  
}
```

ES6 Fat Arrow Functions === Awesome!

```
const add2 = (a, b) => {  
  return a + b  
};  
add2(4, 5); // --> 9  
  
const add3 = (a, b) => (a + b);  
add3(5, 6); // --> 11  
  
const doubleNum = a => (a * 2);  
doubleNum(4); // --> 8
```

HTML Composition: Best Practices

CSS goes here



Content goes here



Javascript goes here



```
<!DOCTYPE html>
<html>
<head>
  <title></title>
  <style>
    .bigHeadline {
      font-size: 40px;
      display: block;
    }
    .hidden {
      display: none;
    }
  </style>
</head>
<body>

  <p id="bigHeadline" class="hidden">Here's the big headline</p>

  <p>Lorem ipsum dolor sit amet, consectetur adipisicing elit, sed do eiusmod
tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam,
quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo
consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse
cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non
proident, sunt in culpa qui officia deserunt mollit anim id est laborum.
</p>

  <script type="text/javascript">
    var headLine = document.getElementById('bigHeadline');
    headLine.className = 'bigHeadline';
  </script>
</body>
</html>
```

Death by PowerPoint: **Not the Way to Learn Coding**



A close-up photograph of a person's hands typing on a silver laptop keyboard. The laptop screen is open, displaying a code editor with CSS code. A yellow arrow-shaped banner is overlaid on the top left of the image, containing the text "True Way to Learn Coding". The background is slightly blurred, showing a desk and some papers. The overall scene suggests a focus on learning to code through practical application.

True Way to Learn Coding

A close-up photograph of a person's hands typing on a silver laptop keyboard. The laptop screen is open, displaying a code editor with CSS code. A yellow arrow-shaped banner is overlaid on the top left of the image, containing the text "True Way to Learn Coding". The background is slightly blurred, showing a desk and some papers. The overall scene suggests a focus on learning to code through practical application.

True Way to Learn Coding



Be prepared to have classes that are increasingly “**just code.**”

(You will appreciate it in the long run.)

Today's Class

Agenda

In today's class we'll be covering:



DOM manipulation using plain JavaScript



DOM manipulation using jQuery



Responding to click events

DOM Manipulation

Understanding the DOM

Basic Example: todomvc.com



Every HTML page begins as static content.



However, with Javascript/jQuery, we can **modify the DOM** and change this static content in real time.



This allows us to build dynamic sites.



Instructor Demonstration

DOM Manipulation with Plain JavaScript



Activity:

Generating HTML with Plain JavaScript

Suggested Time:
15 minutes



Activity: Generating HTML with Plain JavaScript



Using the file sent to you as a starting point, add the missing code so that your JavaScript generates HTML content that displays all drink options.



Hint: You will need a for loop. Inside the for loop, you will need to use each of the following methods: `createElement`, `innerHTML`, and `appendChild`.

Suggested Time: 15 minutes



Intro to jQuery

Intro to jQuery

jquery.com

jQuery is a cross-platform **JavaScript library** designed to simplify client-side HTML scripting.



Query Helper Library

jQuery can be useful for tasks such as:



Dynamically inserting, updating, or removing HTML



Registering click or other change events



Animating HTML elements



Downloading data from databases



And much more!

Working with jQuery

01

Include a CDN (Content Delivery Network) link to the jQuery script.

```
<!-- Added Link to the jQuery Library -->  
<script src="https://code.jquery.com/jquery-2.2.3.js" integrity="sha256-  
laXWtGydpwqJ8JA+X9x2miwmaiKhn8tVmOVEigRNtP4=" crossorigin="anonymous"></script>
```

02

Utilize the jQuery specific (\$) selector.

```
$("#clickMe")
```

03

Apply jQuery methods on the selected elements.

```
$("#clickMe").on("click", function(){  
  
    // Trigger an alert.  
    alert("I've been clicked!");  
})
```



Instructor Demonstration

DOM Manipulation with jQuery



Activity:

Generating HTML with jQuery

Suggested Time:
15 minutes



Activity: Generating HTML with jQuery



Refactor (rewrite) your previous `drinkList` code from earlier, but this time use jQuery to complete all of the same tasks.



Your final code should NOT have any of the following methods: `createElement`, `innerHTML`, or `appendChild`.



Hint: Don't forget to "incorporate" jQuery before you begin.



Bonus: Instead of using a for loop, look up how to use the jQuery `.each` method.

Suggested Time: 15 minutes





Instructor Demonstration

On-Click Basic



Partner Activity: Sandwich Clicking

Suggested Time:
20 minutes



Partner Activity: Sandwich Clicking

Add the missing code so that clicking any of the sandwiches causes:



An alert message that says something snarky about the sandwich type.



An alert message that displays how many of a specific sandwich the user has eaten.



Hint: You will need counter variables.



Bonus: Add an image to the `image-div` on the click event.

Suggested Time: 20 minutes





Partner Activity:

Trigger Random

Suggested Time:
12 minutes



Partner Activity: Trigger Random

Add the missing code so that clicking the big blue button triggers a random number (between 1 and 1,000) to be selected and prominently displayed in the `randomNumber` div.

Suggested Time: 12 minutes





Partner Activity:

Lottery Generator

Suggested Time:
20 minutes



Partner Activity: Lottery Generator

Use the code from the previous random number generator to create a lottery generator.



The lottery generator should select 9 random numbers (and always 9 numbers).
Example: 886563264



Display this number in the `randomNumber` div.



When the user clicks again, create a new row with the most recent number at the top.

Suggested Time: 20 minutes





Challenge:

Number Checker

Suggested Time:
20 minutes



Challenge: Number Checker

Based on the demonstration, create an application in which:



A computer selects a random number between 1 and 4.



The user clicks buttons numbered 1 to 4.



If the user's number matches the computer's number, display text informing them of this in the Result panel. Otherwise, display text informing them that they lost.



Bonus: If you finish early, try to improve the aesthetics of your app.

Suggested Time: 20 minutes





Questions?