



## Master Class Coding Exercises

### JavaScript / jQuery

#### Part 1

Complete the following exercises using JavaScript/jQuery. If you are able, spend some time dressing them up visually. While by no means a requirement, it will help you become more comfortable working with CSS. Consider taking advantage of a CSS framework like Bootstrap (which we use extensively at Coder Foundry) to help you with visual presentation. You might spend some time browsing the Bootstrap documentation at [getbootstrap.com](http://getbootstrap.com), and exploring various Bootstrap templates and themes, such as those available at [wrapbootstrap.com](http://wrapbootstrap.com). (See the examples on page 2.)

1. Define a function `maxOfFive()` that takes five numbers as arguments and returns the largest of them.
2. Define a function `sum()` and a function `multiply()` that sums and multiplies (respectively) all the numbers in an array of numbers.
3. Write a program that calculates the factorial of a number. The factorial of a non-negative integer  $n$  is the product of all positive integers less than or equal to  $n$ . (i.e.  $5! = 5 \times 4 \times 3 \times 2 \times 1 = 120$ ).
4. Define a function `palindrome()` that computes the reversal of a string, returning true if the string is a palindrome (the same forwards and backwards – “radar” for example), and false if otherwise.
5. Write a program that iterates the integers from 1 to 100, printing the numbers to the screen. For each number that is a multiple of three, however, print "Fizz" instead of the number. For multiples of five print "Buzz" instead of the number. For numbers that are multiples of both three and five print "FizzBuzz."

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*You might consider using a jQuery/Bootstrap package such as `SyntaxHighlighter` (<http://alexgorbatchev.com/SyntaxHighlighter/>) to display formatted code in a `TextArea` object.*

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## JavaScript Samples

Max of Five

Sum / Multiply

Palindrome

Longest Word

Filter Long Words

Word Frequency

Alice

FizzBuzz

Perfect Numbers

Factorial

Happy Numbers

Armstrong Numbers

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## JavaScript Samples

## Max of Five

This function accepts five numbers as arguments and returns the largest.

Enter five numbers below:

[Get Max](#)

- Max of Five
- Sum and Multi
- Palindrome
- Longest Word
- Filter Long Wo
- Word Frequen
- Alice
- FizzBuzz
- Perfect Numbe
- Factorial
- Happy Numbe
- Armstrong Nu

```
1 function GetMax() {  
2   var n1 = parseInt($("#p1").val());  
3   var n2 = parseInt($("#p2").val());  
4   var n3 = parseInt($("#p3").val());  
5   var n4 = parseInt($("#p4").val());  
6   var n5 = parseInt($("#p5").val());  
7   var num = 0;  
8   if (n1 > n2 && n1 > n3 && n1 > n4 && n1 > n5) {  
9     num = n1;  
10  }  
11  else if (n2 > n1 && n2 > n3 && n2 > n4 && n2 > n5)  
12    num = n2;  
13  }  
14  else if (n3 > n1 && n3 > n2 && n3 > n4 && n3 > n5)  
15    num = n3;  
16  }  
17  else if (n4 > n1 && n4 > n3 && n4 > n2 && n4 > n5)  
18    num = n4;  
19  }  
20  else {  
21    num = n5;  
22  }  
23  $("#maxResult").html(num + " is the max number.");  
24 }
```

## JavaScript Samples

## Max of Five

This function accepts five numbers as arguments and returns the largest.

Enter five numbers below:

[Get Max](#)

- Max of Five
- Sum and Multi
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55 is the max number.

```
1 function GetMax() {  
2   var n1 = parseInt($("#p1").val());  
3   var n2 = parseInt($("#p2").val());  
4   var n3 = parseInt($("#p3").val());  
5   var n4 = parseInt($("#p4").val());  
6   var n5 = parseInt($("#p5").val());  
7   var num = 0;  
8   if (n1 > n2 && n1 > n3 && n1 > n4 && n1 > n5) {  
9     num = n1;  
10  }  
11  else if (n2 > n1 && n2 > n3 && n2 > n4 && n2 > n5)  
12    num = n2;  
13  }  
14  else if (n3 > n1 && n3 > n2 && n3 > n4 && n3 > n5)  
15    num = n3;  
16  }  
17  else if (n4 > n1 && n4 > n3 && n4 > n2 && n4 > n5)  
18    num = n4;  
19  }  
20  else {  
21    num = n5;  
22  }  
23  $("#maxResult").html(num + " is the max number.");  
24 }
```