Final Exam

April 18th

11:00am-12:55pm

- L104

- You may not use your phone at any time during this exam. Your phone must be turned off and put away. You may use your own laptop for this exam.

- If you have to go to the bathroom during this exam, your cell phone must remain with the instructor for the duration of your bathroom break

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The Exam

- This is an open book exam
- **You may use your notes, textbook, assignments, labs.**
- You **must** complete all portions of this exam.
- You may complete the exam in whatever order you choose.

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Section 1

- Practical (on computer) question
- One canvas exercise
  - Create the HTML
  - Reproduce the behavior
- Can cover anything from loops up to timers
- Suggested study material:
  - In lab exercises 6 - 11

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Section 2

- Written exam
- ~10 marks of Short Answer
  - Explain, define, demonstrate, show examples
- ~20 marks of Code Tracing
  - 4ish questions
  - Trace through the code. What is the output?
  - Modify the code to give the correct output
  - Circle and correct the errors
- ~5 marks of Coding
  - One question
  - Write the JS to perform a task

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Exam Period Office Hours

- **Tuesday, April 11**
  - 11:00 – 13:00
- **Wednesday, April 12**
  - 11:00 – 13:00
- **Thursday, April 13**
  - TBD
- **April 14 – 17, Easter long weekend**
  - I won't be anywhere near Vancouver
- **Friday, April 21 – for discussing exam results/final grades**
  - 9:00 – 2:00
- **Monday, April 24 – for discussing exam results/final grades**
  - If necessary

Practice Short Answer

▶ What is meant by the term "Conditional Execution"?

▶ Explain the typeof() function

▶ In JavaScript what is the resulting type when you add a value of type string to a value of type number?

▶ What are the two uses of the '+' symbol?

▶ Name two uses of <input> tag

▶ Explain the indexOf method for an array

▶ What is the minimum number of elements you can store in an array?

Short Answer

- What is the difference between the symbols != and !==
- When we want to manipulate an HTML element in JavaScript what is the first thing we need to do in JavaScript?
- Explain the difference between a for loop, a while loop, and a do while loop
- In an if statement, what is the minimum number of else statements you can include?
- When does an event handler execute? Give an example.
- When does the code body for a function execute?
- What is a parameter for a function?
- What is the difference between local variables and global variables?
- What is the onclick event?

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Practice Code Analysis

```
function enigma(paramArr, N) {
    var a1 = 1;
    var a2 = 0;
    for (var i = 0; i < paramArr.length; i = i +
1) {
        if (paramArr[i] % N === 0)
            a1 = a1 * paramArr[i];
        else
            a2 = a2 + paramArr[i];
    }
    return [a1, a2];
}
var result = enigma([5,2,3,11,6, 9],2);
```

What is stored in result after this code is finished executing?

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Code Analysis

```
var sentence = "";
var paragraph = "";
var i;

for (i = 0; i < 7; i = i + 1) {
    if (i !== 3) {
        sentence = sentence + "a";
    } else {
        sentence = "b" + sentence;
    }
    paragraph = paragraph + sentence + "<br>";
}
What is stored in paragraph when the code is finished executing?
```

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Code Analysis

```
function mystery(paramArr) {
    var outArray = [];
    for (var i = 0; i < paramArr.length; i = i + 1) {
        if (paramArr[i] === paramArr[i].toLowerCase() ) {
            outArray.push(paramArr[i]);
        }
    }
    return outArray;
}
var messages = mystery(["loch ness", "Big foot", "Area 54","agatha
christy", "sherlock Holmes"]);
```

What is stored in messages after the above code is finished executing?