## Assignment 1

Make sure to test all your answers in the console.

- 1. Review the documentation for parseInt<sup>1</sup>. Then answer the following questions.
  - a. The string "ffff" represents a hexadecimal number. Write an expression parseInt(...) that would return the number that this string represents.

b. Do the same for the string "10010101" that represents a number in binary format.

c. What does parseInt do if it is called with a string it cannot properly process?

- 2. Look at the Math library<sup>2</sup>. Then answer the following questions (do NOT use experimental methods; those marked with a little symbol on their side):
  - a. Write the expression that would compute the circumference of a circle of radius r.

b. Write an expression that returns a boolean telling us if the number x is less than 1 in absolute value.

<sup>&</sup>lt;sup>1</sup>https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global\_Objects/parseInt

|    | c. Use ${\tt Math.log}^3$ to write an expression that would compute the base 2 logarithm of the number ${\tt n}.$   |
|----|---|
|    | d. Combine Math.random and Math.floor to write an expression that produces a random integer from 0 to 2 (i.e. 0, 1 or 2).   |
| 3. | How many different types of numbers do we have in Javascript? (Circle correct one)  |
|    | <ul> <li>Two: 32bit integers and double-precision 64bit floating point numbers</li> <li>One: all numbers are double-precision 64bit floating point numbers</li> <li>Four: short and long integers, single- and double-precision floating point numbers</li> </ul> |
| 4. | The expression $x/+0$ for $x$ a <b>finite number</b> can have 3 different values, depending on what value $x$ has. List all 3 values along with examples of $x$ values that produce them.   |
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| 5. | True or False: Javascript can only be run inside a web browser.   |
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|    |   |

<sup>&</sup>lt;sup>3</sup>https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global\_Objects/Math/log