Assignment 1

Make sure to test all your answers in the console.

1. Review the documentation for parseInt[1]. 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[2]. 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.

[1] https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/parseInt
[2] https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Math

c. Use Math.log[3] to write an expression that would compute the base 2 logarithm of the number 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)
   - Two: 32bit integers and double-precision 64bit floating point numbers
   - One: all numbers are double-precision 64bit floating point numbers
   - Four: short and long integers, single- and double-precision floating point numbers
4. The expression x/+0 for x a **finite number** can have 3 different values, depending on what value x has. List all 3 values along with examples of x values that produce them.
5. True or False: Javascript can only be run inside a web browser.

[3] https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Global_Objects/Math/log