

### Question 1:

My submission for assignment 4 will be a web calculator with the capability to perform the 4 main operations plus the ability to switch between degrees and radians for sin/cosine.

The calculator will have the same buttons as a standard calculator: the 10 digits will be arranged like how they are on a number pad. Then, all functions will be listed. Below that, there will be options to shift and clear the calculator.

Post Completion: The sin/cosine part was added late into the project, so it doesn't work 100% as it should, but you can get the sine and cosine of a value if you try hard enough.

### Question 2:

To manage input and output of data, buttons and `<p>` elements will be used. To input values and change the operation the calculator is using, buttons will be used. The number output will be placed in a `<p>` element at the bottom of the (relatively short) page.

Number variables will be used throughout the code, while strings will be used to control what operation the calculator is performing. A Boolean variable will be used to store if the calculator is in degrees/radians mode. I don't have a firm idea of what I could use an object for here, but I could use it to store something like program information and print it out into the console when the webpage is loaded.

I will use a conditional to determine if I will output the degrees or radians version of a trig calculation.

I will use an array to temporarily store inputs from number buttons which then will be merged to form a full number when it is time to calculate.

I will use functions throughout the code, such as when inputting values into the calculator. Some functions will have variables inside them, therefore demonstrating scope.

The primary event used on this webpage will be onclick, which will perform many actions such as inputting values into the calculator or setting degrees or radians.

I just plan on recording common and interesting errors I come across.

### Question 3:

While searching for libraries to try out, I stumbled upon React, which makes it easier to make user interfaces. I followed their example here: <https://reactjs.org/docs/add-react-to-a-website.html>. This creates a like button that switches to a text box that says "you liked this." This means more of the coding is done in JavaScript as opposed to HTML.