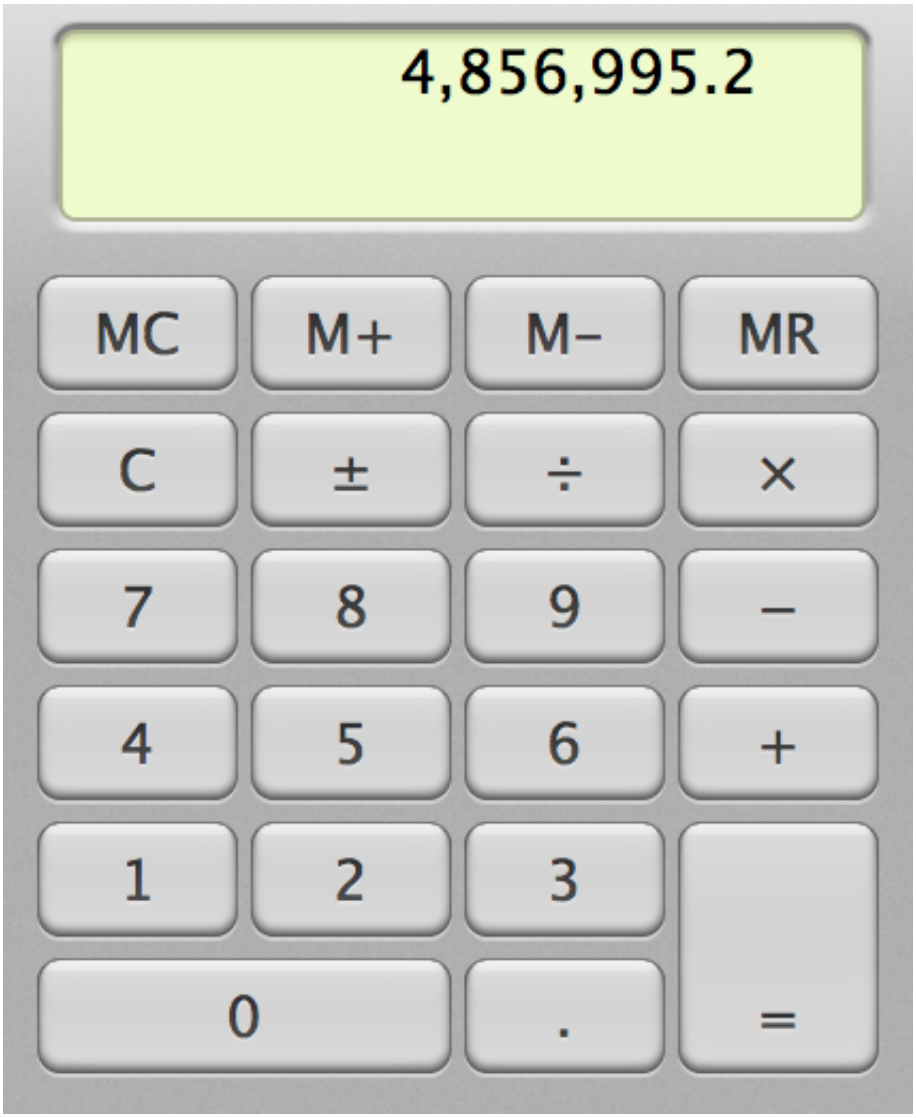
6.MITx: Day 2 PM Project

Your challenge for this afternoon is to reproduce the Apple Calculator interface, as closely as you can, using HTML and CSS.



For reference, this image is at
http://web.mit.edu/6.mitx/www/Day2PMProjectHandout/image00.png

Let's approach it step by step.

Iteration 1: rough cut

1. Start a new .html file, apple-calculator.html.
2. Create the HTML structure of the calculator, with and <button> elements. Some of the operator symbols, like ±, will be tricky, so for now just approximate them with characters you can easily type on your keyboard.
3. Arrange your buttons into rows using a container for each row. The = button will be tricky because it spans two rows; just pick a row to put it in for now, and make it the same size as the other buttons.
4. Measure the widths, heights, and gaps between the buttons (you may find the PageRuler extension useful for this). Write CSS rules to size and space them

properly. Keep all the buttons the same size for now. **Resist the urge to position all the elements with absolute left and top coordinates.** You don't have to. Your CSS will have a lot fewer hardcoded numbers if you let the browser do the calculations for you automatically.

5. Get the colors roughly correct: dark gray, light gray, and greenish. The ColorZilla browser extension will help here.
6. Get the font roughly the right size, and roughly the right family.

Iteration 2: details!

1. Find the characters for the tricky symbols. Google for "HTML entities reference" for the codes you can use to put these in HTML. Look closely at the multiply and subtract buttons as well -- the keys on your keyboard are probably the wrong characters!
2. Make the 0 button span two columns.
3. Make the = button span two rows, and make sure the = label is aligned where it should be.
4. Put a border around the output display.
5. Add rounded corners to the output display and the buttons.

Iteration 3: perfection!

1. Notice that there is a gradient on the dark gray background -- it's slightly lighter at the top of the calculator than at the bottom. Replicate this gradient, and make the colors precise.
2. Match the font as closely as possible. Try cropping the image down to just 4,856,995.2 and upload it to WhatTheFont. If you're viewing the page on a Mac, you should be able to match it precisely, but choose your font-family so that it falls back gracefully to other font(s) if the precise Apple font is not available.
3. Try to match the shadows at the top and bottom of the buttons, and top and bottom of the output.

Good luck!