

CS 105: Midterm 1 Free Response Rubric Spring 2015

"President" (First Problem) Rubric

This problem has four structural parts:

- 1. Looping through the votes array (for-loop)
- 2. Picking out an individual vote from the votes array (votes[i])
- 3. Finding the appropriate index in the tally array (findIndex function)
- 4. Adding a vote for the appropriate candidate for each voter (.votes++)

All 4 parts: 15 points 3 of 4 parts: 8 points 0-2 parts: 0 points

Additionally:

The code **must** be general. Use of "Alice", "Brad", etc to accomplish the problem (Step 3) instead of using findIndex(...) should **not be** counted as correct for Step 3. (Eg: max value 8/15.)

Finally, deduct -5 points for every unique line that breaks the solution. For example, some solutions will try and tally.push(), which breaks the solution and represents a clear mis-understanding of the problem.

"President" (Second Problem) Rubric

This problem has four structural parts:

- 1. Is a function
- 2. Looping through the tally array
- 3. Finding and maintaining a maximum value of votes seen (or otherwise sorting)
- 4. Returning name associated with the maximum number of votes

All 4 parts: 21 points 3 of 4 parts: 11 points 0-2 parts: 0 points

Additionally:

The code **must** be general. Use of "Alice", "Brad", etc to accomplish the problem should be graded **-10**, making the maximum score possible a 11/21 if everything else is perfect.

Finally, deduct **-7** points for every unique line that breaks the solution. For example, some solutions will try and tally.push(), which breaks the solution and represents a clear mis-understanding of the problem.

"CS 105 Image" Rubric

This problem has five structural parts:

- Initialize a counter to 0 outside of the for-loop (this is **not correct** if the counter is initialized to zero **inside** of any for-loop, this would yield an incorrect answer; it **is okay** if it is outside of the function even though this would cause the function to work correctly only once).
- 2. Loop through every pixel (this includes a **height and a width**; **it is okay** if width/height are swapped; it **is okay** if they use i and j, x and y, or whatever variable they want)
- 3. Using the img.getHSL(a, b) method to get the HSL color value. (Again, **okay** if a/b, x/y, i/j are swapped; **not correct** if they just do getHSL(a, b) as getHSL is a method of img.)
- 4. Increments the counter if the luminance is equal to 0.5. Nether hue nor saturation may be used, as those are the same across all three pixel colors.
- 5. Return the counter outside of the for loop.



All 5 parts: 15 points 4 parts: 9 points 3 parts: 3 points 0-2 parts: 0 points

Additionally:

Deduct **-5** points for every unique line that breaks the solution. For example, some solutions will try and tally.push(), which breaks the solution and represents a clear mis-understanding of the problem.