Hints for Assignment 2

I would structure the inside of the function in this manner.

1. Compute histogram and store in variable `h`
2. Compute threshold and store in variable `thres`. You will need the MATLAB functions `mean2` and `round`.
3. Set a "previous threshold" variable call `thres_prev` to `thres + 1`
4. Use a `while` loop that should execute when `thres_prev` is not equal to `thres`. Based on the settings in steps 2 and 3, the loop will execute at least once.
    a. Set `thres_prev` to `thres`
    b. Let's represent μ_1 (see assignment instructions) using the MATLAB variable name `meanLow`. I was able to compute `meanLow` without loops. For the numerator, I formed a vector of gray levels by typing the following
    `D = 0:thres_prev`
    then I did element-wise multiplication between `D` and the corresponding elements in `h` using indexing and the .* operator. Finally, I used the MATLAB function `sum` to get the numerator. The denominator is easy to find using the function `sum` and indexing into `h`. I can't give more hints without solving this step.
    c. Let's represent μ_2 using the MATLAB variable name `meanHi`. You can use the logic from step 4b to compute `meanHi`, but you will need to form a new `D` and do element-wise multiplication with the corresponding elements of `h`.
    d. Compute a new value for `thres` from `meanLo` and `meanHi`. You will need to use the `round` function and some math.
    e. This is the bottom of the while loop, and the code should automatically loop back up to
5. Normalize `thres`

If you use the variable names I have given above, you will make marking a lot easier for the TAs.