CS 100: Section Assignment 10

(For the week of April 12)

Section assignments are discussed in section and are not submitted for grading. They relate to recent lecture topics and usually to the current Programming Assignment. Prelim questions are based on Section Assignments, Programming Assignments, and Lecture examples.

1. Suppose `v` is an initialized vector. Write a Matlab script that assigns to `ave` the average of all the values in `v` and then subtracts `ave` from each component of `v.` We say that `v` has been *normalized* because the average of its values is now zero. (b) Suppose `A` is an initialized matrix. Write a Matlab script that normalizes each of its rows. In other words, for each valid row index `i,` compute the average of the values in `A(i,: )` and then subtract that number from each entry in `A(i,:).`

2. Write a script that plots the function $f(x) = (1+ \exp(-x)\sin(x) / (2 + \sin(x))$ across the interval [0,5].

3. Complete the following Matlab function.

```
  function y = BigEntries(x)
% x is a vector.
% y is a subvector of x consisting of those values in x that are closer
% to the max(x) than to sum(x)/length(x)
```

Make effective use of the `find` function.

4. Assume that `n` is an initialized positive integer. Write a script that plots in a single window the functions x, x^2,…,x^n. The plots should be across the interval [0,1].

CS 100: Section Assignment 2

(For the week of February 8)

Section assignments are discussed in section and are not submitted for grading. They relate to recent lecture topics and usually to the current Programming Assignment. Prelim questions are based on Section Assignments, Programming Assignments, and Lecture examples.

1.

2.
3.
4.
Make effective use of `hold.`