Homework #1

```matlab
clc;
clear;

% The first column consists of student ids.
% The second column consists of their scores.
roster = [
        8000        80
        8001        39
        8002        24
        8003        40
        8004        10
        8005        13
        8006        94
        8007        96
        8008        58
        8009        16
        8010        23
        8011        35
        8012        82
        8013        12
        8014        34
        8015        17
        8016        65
        8017        73
        8018        65
        8019         4];

% Find out how many students in ECE 498? (Hint: size)

class_size = size(roster, 1)

% What is the highest score? (Hint: max)

highest_score = max(roster(:,2))

% Who has the highest score? (Hint: max)

highest_student = roster(roster(:,2) == max(roster(:,2)),1)

% What is the lowest score? (Hint: min)

lowest_score = min(roster(:,2))

% What is the median score? (Hint: median)

median_score = median(roster(:,2))

% What is the mean score? (Hint: mean)

mean_score = mean(roster(:,2))
```

```matlab
% What is the sum of all scores? (Hint: sum)

sum_score = sum(roster(:,2))

% Find out how many students have a score greater than 60 (Hint: sum)

above_60 = sum(roster(:,2) > 60)

% Sort the roster based on the scores in descending order. The student
 ids have to remain in the same row as their scores. (Hint: sort)

sorted = sortrows(roster,2,'descend')

% Remove the row from the roster that contains the highest score
 (Hint: max)

roster(find(roster(:,2) == highest_score),:) = []
```

class_size =

   20

highest_score =

   96

highest_student =

      8007

lowest_score =

    4

median_score =

   37

mean_score =

    44

sum_score =

   880

```
above_60 =

     7


sorted =

        8007        96
        8006        94
        8012        82
        8000        80
        8017        73
        8016        65
        8018        65
        8008        58
        8003        40
        8001        39
        8011        35
        8014        34
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```