

- 1) The vectorized operations we looked at in a previous assignment (for example `max` and `sort`) can behave differently when the input is a matrix instead of a vector. Enter

```
>> A = rand(5,5)
```

the answer the questions below.

- (1 pt) Explain the output of `A(:)`. You should not just say what it looks like. Explain how the values in this output relate to `A`.
 - (1 pt) Explain the output of `max(A)`.
 - (1 pt) Explain how you can compute the actual maximum value of `A`.
 - (1 pt) Explain the output of `[amax, aii] = max(A)`.
 - (1 pt) Explain the output of `[SA, SII] = sort(A)`.
 - (1 pt) Explain the output of `A(7)`.
- 2) (10 pts) For this question you will need to write a function and a script to test the function. In this case the script is called a *driver script*.

The driver script should do the following:

- Load the file `hw19.dat`. This file contains two columns of data that represent experimental observations for growing corn. The first column is the amount of fertilizer used (in mg). The second column is the height of the corn in feet.
- Extract the columns from the loaded data file into more meaningful variable names.
- Send these two columns as input to a function that will compute the best-fit slope and y -intercept (the function to compute the slope and y -intercept should use the work you did in a previous assignment).
- Display the resulting slope and y -intercept. You can use a syntax like (assuming your slope is in a variable called `m`)

```
t1 = ['The slope is ' num2str(m)]  
disp(t1)
```

- Compute the vector `p` using

```
p = polyfit(x,y,1)
```

(replace `x` and `y` with your variables). Do you recognize the values in the vector `p`? What are they?