1. Given X = [1,2,3,4], how would you multiply 5 to all the elements to get Y = [5,10,15,20]?
2. Similarly, how would you divide all the elements by 2 to get Y = [0.5, 1,1.5,2]?
3. Given X = [1,2,3,4] and Y = [6,7,8,9], how would you divide in MATLAB each respective element of X by Y to get Z = [0.1667 0.2857 0.3750 0.4444]

i.e. Z = [1/6, 2/7, 3/8, 4/9]

1. Given x=randn(1,100), how would you find the min and max element of this vector?
2. How do you define a row vector or column vector of 100 zeros i.e.

X = [0,0,0,0…….]

Note that I expect you to use MATLAB command to do it and not manually type 0,0,0……all the way to the 100th zero

1. X = randn(7,8,12).

This is a 3-dimensional matrix. If I want to find the size of the 2nd dimension, what is the matlab command to find it?

1. Given the following

X = randn(1,5) will give 5 element row vector

1. How would you use a for loop to find the sum of the 5 elements
2. Which matlab function can give you the sum of the elements?
3. What does the MATLAB function ceil, floor, round do? Show example on how to use it
4. Given x=ceil(rand(1,40)\*100). Let this represent the Math scores obtained by a class of 40 pupils and given y = rand(1,40)> 1 represent the male students i.e. 0 = female, 1 = male
5. how you can return me the number of students whose scores is greater than or equal to 50.
6. What is the mean score of the students who failed?
7. What is the mean score of the students who passed?
8. What is the mean score of the male students who failed?

I am not looking for the exact score since scores are randomly generated, what I’m looking for is the code you will write in MATLAB to get the mean score for the respective 2 groups

1. Given 2 matrices A = randn(3,4,5) and B = randn(3,4,5).
2. How would you join the two matrices together such that the resulting matrix will be [3, 8,5]
3. How would you join the two matrices together such that the resulting matrix will be [6, 4,5]
4. How would you join the two matrices together such that the resulting matrix will be [3, 4,10]
5. Given x = [1,1,2,3,3,3,4,4,4]. How to find the unique elements of this vector i.e. 1 ,2,3,4
6. Given x = [1,1,2,3,3,3,4,4,4,nan,nan,nan].
   1. How do you find which elements are nan?
   2. How to find the unique elements of this vector i.e. 1 ,2,3,4
7. Read up on STRUCTURES AND CEIL ARRAYS IN MATLAB
   1. Video tutorial <http://www.mathworks.com/videos/introducing-structures-and-cell-arrays-68992.html>