Matlab Homework 0*a*

In the online book:

- Do the "Challenge Activities" of: None
- Do the "Participation Activities" of: 1.1-3 and 2.1,2,4-7

Matlab Homework 0*b*

Note: The three questions below are for testing only and are zero credit. But you are encouraged to try your hand at them anyway before the real thing in homework 1.

All work is to be completed using the Matlab program *only!* The homework problems closely follow the lecture ones. You should carefully read the corresponding posted lesson parts *before* starting the homeworks.

The TAs and Instructor will refuse to help you if you come to them with problems before you have carefully read the corresponding lesson.

Before starting this homework, you must start Secure Shell Client, open host wolf and log in using your COE username and password. Then run the command `~dommelen/gethw0` to create the `hw0` folder. Select this folder in Matlab (double-click it). Put the solution of question 1 in file `q1.m`, question 2 in `q2.m`, etcetera.

To test whether the solution for question 1 works, run the command

```
q1
```

in the Matlab command window. (Don't forget to save `q1.m` first.) Fix any problems. Then `publish` the result to pdf file `q1.pdf` using

```
publish q1.m pdf
```

Print `q1.pdf` out (it should be in the `html` folder) and include it as the first part of your homework solution. (If you do not manage to create `q1.pdf`, print out `q1.m` for a 50% credit reduction.)

Normally speaking, each Matlab line in your solution must be preceded by an explanatory comment.

The grader must be able to figure out easily what number answers what. So, in addition to comments, use `disp` *commands where needed.*

1. Use Matlab to evaluate:

   (a) $\frac{2+3}{4}$

   (b) $\sin(30^\circ)$

2. Store in variable `average_grade` the value of average exam grade, if the two exam grades were 45 and 90. Print the value in `average_grade` out separately from storing the number in it.

3. Matlab has a function `sqrt` that returns the *square root* of its argument. But Matlab does not have a function that returns the *square* of its argument. Fix this by defining your own function `sqr` that returns the square of its argument. Test it on the values 2 and 3, and on a variable that contains the value 4.