

MATH 280-01 (142)
MATLAB Assignment 1

The MATLAB command `RAND(N)` generates an N-by-N matrix with random entries, chosen from a uniform distribution on the interval (0.0,1.0). Write, for example, $A = rand(2)$ to get a 2×2 matrix.

The command `S = SUM(X)` is the sum of the elements of the vector X. If X is a matrix, S is a row vector with the sum over each column.

The command `ONES(M,N)` or `ONES([M,N])` is an M-by-N matrix of ones.

We can use the following commands to measure the elapsed time for each computation:

`TIC` Start a stopwatch timer.

`TOC` Read the stopwatch timer.

The **diary** function creates a log of keyboard input and the resulting text output, with some exceptions. The output of diary is an ASCII file, suitable for searching in, printing, inclusion in most reports and other documents. If you do not specify filename, the MATLAB software creates a file named diary in the current folder.

diary('filename') writes a copy of all subsequent keyboard input and the resulting output (except it does not include graphics) to the named file, where filename is the full pathname or filename is in the current MATLAB folder. If the file already exists, output is appended to the end of the file. You cannot use a filename called off or on.

diary off suspends the diary.

To learn more about this command, type *help diary*.

Do the following exercises from your textbook:

1. 1(a), 1(b), 1(c) page 78.
2. 2(a) page 78.
3. 9(a) page 80.