

## MATLAB QUICK REFERENCE CARD

Frequently used MATLAB commands – Version v0.1 August 2014

### Basic Commands and Functions

`clc`..... clears command window  
`clear`..... clears workspace  
`Diary`..... creates a copy of all commands and most results  
`exit`..... terminates MATLAB  
`help`..... invokes help utility  
`helpwin`..... invokes windowed help utility  
`length`..... length of a vector or maximum dimension of an array  
`size`..... display dimensions of a particular array  
`quite`..... terminates MATLAB  
`save`..... saves variables in a file  
`who`..... lists variables in memory  
`whos`..... lists variable names, sizes, and types in memory

### Special Variables/Constants

`ans`..... most recent temporary answer  
`eps`..... accuracy of floating point precision  
⇒ default:  $2.2204e^{-16}$   
`i`..... imaginary number  
`flops`..... count of floating point operations  
`Inf`..... infinity, ie. any number divided by 0  
`NaN`..... Numerical result is not defined  
`pi`..... the math pi (3.1415e)  
`realmin, realmax`  
smallest, largest real number MATLAB can represent  
`intmin, intmax`  
returns smallest, largest possible integer used in MATLAB

`clock, date`.. returns the time, date

### File & Folder Operations

`cd`..... change direction  
`copyfile`..... copy from *pathA* to *pathB*  
`dir`..... output content of a folder  
`exist`..... determines whether variable, function or folder exists  
`open('workspace.mat'), load('workspace.mat')`  
opens file to command line, additionally load it into workspace window  
`csvwrite()` .. write to CSV format in current folder

### Special Characters

<code>[]</code>	forms matrices
<code>()</code>	used in statements to group operations
<code>.</code>	decimal point
<code>,!</code>	separates subscripts or matrix elements
<code>;</code>	separates rows in a matrix definition or suppresses output
<code>:</code>	indicates all rows or all columns
<code>=</code>	assignment operator (not equality)
<code>%</code>	indicates a comment
<code>%%</code>	cell divider
<code>+</code>	addition
<code>-</code>	ubtraction
<code>*</code>	multiplication
<code>.*</code>	array multiplication
<code>/</code>	division
<code>./</code>	array division
<code>^</code>	exponential
<code>.^</code>	array exponential

### Relational and Logical Operators

<code>i</code>	less than
<code>i==</code>	less than or equal to
<code>i</code>	greater than
<code>i==</code>	greater than or equal to
<code>==</code>	equal to
<code>=</code>	not equal to
<code>&amp;</code>	and
<code>!</code>	or
<code>~</code>	not

### Conditional Statements

```
if expression
    statements
elseif expression
    statements
else expression
    statements
end

switch switch_expression
    statements
case case_expression
    statements
case case_expression
    statements
otherwise
    statements
end

for k = vectorOrColumnList
    statements
end

while logicalExpression
    statements
end
```

This TeXfile is based on Gabriel B. Burcas © git-qrc.tex and has then been modified to my own requirements, with permission!