

Scientific Computing (2WN10)

Handout: useful Matlab commands

Matlab has a large number of builtin commands. Not all of these are relevant for the current course. To help you understand a subset of useful commands, please execute successively the following Matlab commands and interpret their actions:

```
help
A=[8,1,6;3,5,7;4,9,2]
B=A'
x=[1;0;0]
y=x'
help arith
A*x
y*A'
B*x
y*B'
help slash
A\x
y/A
B\x
y/B
A*B
A.*B
2*A
A*A
A.*A
A^2
A.^2
help inv
inv(A)
A*inv(A)
A/A
A./A
help norm
norm(A)
norm(A,1)
norm(A,inf)
norm(B)
norm(B,1)
norm(B,inf)
help cond
cond(A)
norm(A)*norm(inv(A))
help eig
eig(A)
[V,D]=eig(A)
[V,D]=eig(B)
```