

Matlab commands

% - comment

&& % AND

% 0.2f for 2 decimal place.

zeros

ones

eye

rand

> pwd / shows current directory

> ~~load~~ features.mat

→ to delete, we use

clear ans

→ to save a variable 'v',
save hello.mat v;

λ load

→ To save in text,

save hello.txt v -ascii

→ A(:) is used to give a column vector.

$A * B$

matrix multiplication

$A . * B$

element wise multiplication

$$A = \begin{pmatrix} 1 & 2 \\ 3 & 4 \\ 5 & 6 \end{pmatrix}$$

$$3 \times 4$$

$$5 \times 6$$

$$A' = \begin{pmatrix} 1 & 3 & 5 \\ 2 & 4 & 6 \end{pmatrix}$$

$$2 \times 4 \times 6$$

$$A = \begin{pmatrix} 1 & 15 & 2 & 5 \\ 2 & 4 & 6 & 8 \end{pmatrix}$$

$$[val, ind] = \max(a)$$

$$val = 15$$

$$ind = 2$$

$$A = \max(3)$$

$$A = \begin{pmatrix} 8 & 1 & 6 \\ 3 & 5 & 1 \\ 4 & 9 & 2 \end{pmatrix}$$

$\text{sum}(a) \rightarrow \text{sum of all numbers}$

$\text{prod}(a)$

$\text{floor}(a)$

$\text{ceil}(a)$

$$A = \begin{bmatrix} 8 & 1 & 6 \\ 3 & 5 & 7 \\ 4 & 9 & 2 \end{bmatrix}$$

$$\max(A, [1], 1)$$

= column wise max

$$= [8, 9, 7]$$

$$\max(A, [1], 2)$$

= row wise max

$$= \begin{bmatrix} 8 \\ 7 \\ 9 \end{bmatrix}$$

for overall max,
 $\max(\max(A))$

or $A(:)$

$\max A$

Plot

`print = dpy 'myplot.png'`

>> `A = magic(5)`

>> `imagec(A)`

>> `imagec(A), colorbar, colormap gray;`

```
→ for i = 1:10,  
    v(i) = 2^i;  
end;
```

```
→ i = 1  
while i <= 5,  
    v(i) = 100;  
    i = i + 1;  
end;
```

Functions

```
function y = squareThisNumber(x)  
    y = x^2;
```

```
addpath('c:\Users\g\Desktop');
```

```
function [y1, y2] = Sq the Area, Circ This Number(x)  
    y1 = x^2;  
    y2 = x^3;
```