Arthematic Operators

any set of numbers which can be arranged in rectangular form can be called an array

1D Array, 2D Array, 3D Array

Higher dimensional arrays are not so common

Matrix = 2D Array

Vector = 1D Array (row, column)

Scalars → vectors → matrices → matrix

1) Matrix Operation
2) Array Operation

MATLAB defines two different operators to perform.

(Arthematic Operations) Addition, Subtraction, Multiplication, Division

(Matrix Operations) A+B, A-B, A*B, A/B

Right Division	A./B	(Array Operations)
Left Division	A.\B	
Power	A.^B	
Multiplication	A.*B	

Added dot is important

Array Operation

Multiplication

$A.*B = a_{ij} * b_{ij}$ (each element by element multiplication)

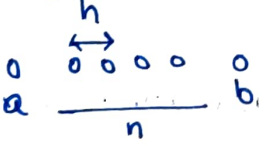
Right Division

$A./B = a_{ij} / b_{ij}$ (element by element)

Left Division

$A.\backslash B = b_{ij} / a_{ij}$ (element by element)

1D Array is called vector



a = starting point
b = ending point
n = no. of data
h = step size

Fixed Spacing

1) $v = a : h : b$

a = starting point
h = increment point
b = maximum possible value of the last element of vector v

2) Fixed number of points

v = linspace (a, b, n) [linearly spaced points]

a = starting value
b = end value
n = number of points