

# CH03\_03

<Matrices> : 행렬.

$$A \in \mathbb{R}^{m \times n} = \begin{bmatrix} a_{1,1} & a_{1,2} & \cdots & a_{1,n} \\ a_{2,1} & & \ddots & \\ \vdots & & & \\ a_{m,1} & & & a_{m,n} \end{bmatrix}$$

$A_{i,*} \Rightarrow$  제  $i$ 행 Row.

$A_{*,j} \Rightarrow$  제  $j$ 열 Column.

<Transposes of Matrices>

$$\begin{bmatrix} a_{1,1} & a_{1,2} & \cdots & a_{1,n} \\ a_{2,1} & & \ddots & \\ \vdots & & & \\ a_{m,1} & & & a_{m,n} \end{bmatrix}$$

행과 열을 바꿔.

<Scalar Multiplications of Matrices>

$$dA = \begin{bmatrix} da_{1,1} & da_{1,2} & \cdots & da_{1,n} \\ da_{2,1} & da_{2,2} & \cdots & \\ \vdots & \vdots & \ddots & \\ da_{m,1} & \vdots & & da_{m,n} \end{bmatrix}$$