>

実習9.3

> $with(LinearAlgebra):$

> $A := Matrix([[2, 3], [3, 1]])$

$$A := \begin{bmatrix} 2 & 3 \\ 3 & 1 \end{bmatrix} \tag{1}$$

> $B := Matrix([[3, 4], [5, 3]])$

$$B := \begin{bmatrix} 3 & 4 \\ 5 & 3 \end{bmatrix} \tag{2}$$

>

(1)

> $A^{(-1)}$

$$\begin{bmatrix} -\frac{1}{7} & \frac{3}{7} \\ \frac{3}{7} & -\frac{2}{7} \end{bmatrix} \tag{3}$$

(2)

> $Transpose(Transpose(A))$

$$\begin{bmatrix} 2 & 3 \\ 3 & 1 \end{bmatrix} \tag{4}$$

(3)

> $(A \cdot B)^{(-1)}$

$$\begin{bmatrix} \frac{15}{77} & -\frac{17}{77} \\ -\frac{2}{11} & \frac{3}{11} \end{bmatrix} \tag{5}$$

(4)

> $A^{(-1)}.B^{(-1)}$

$$\begin{bmatrix} \frac{18}{77} & -\frac{13}{77} \\ -\frac{19}{77} & \frac{18}{77} \end{bmatrix} \tag{6}$$

(5)

> $B^{(-1)}.A^{(-1)}$

$$\begin{bmatrix} \frac{15}{77} & -\frac{17}{77} \\ -\frac{2}{11} & \frac{3}{11} \end{bmatrix} \tag{7}$$

(6)

> $(B - A)^{(-1)}$

Error, (in rtable/Power) singular matrix

逆行列は存在しない

(7)

> $Determinant(B - A)$

$$0 \tag{8}$$

(8)

> $Determinant(A)$

$$-7 \tag{9}$$

(9)

> $Determinant(Transpose(A))$

$$-7 \tag{10}$$

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