

Matriks

Transposisi (*Transposition*)

Standard Pembelajaran

- Menambah dan menolak matriks melibatkan transposisi (*transposition*).
- Mendarab dua matriks melibatkan transposisi (*transposition*).

CASIO®



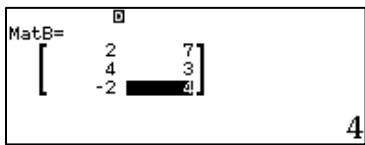
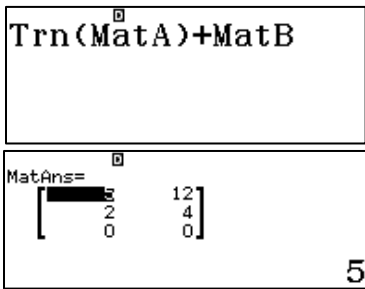
Boost Your Curiosity

Menambah dan menolak matriks melibatkan transposisi (*transposition*)

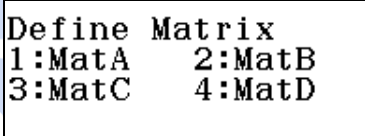
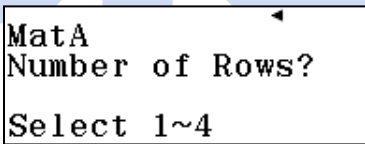
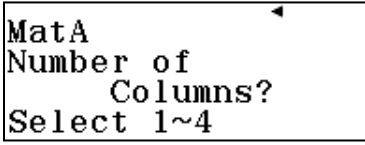
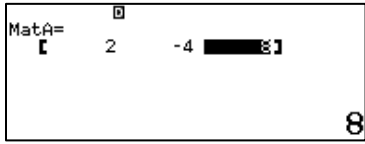
1. Selesaikan setiap operasi matriks yang berikut:

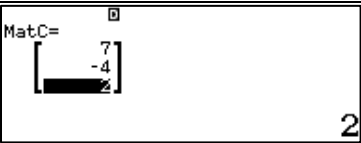
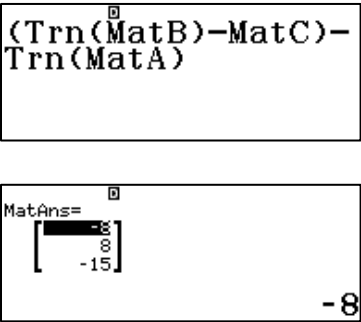
a) Diberi bahawa $A = \begin{pmatrix} 3 & -2 & 2 \\ 5 & 1 & -4 \end{pmatrix}$ dan $B = \begin{pmatrix} 2 & 7 \\ 4 & 3 \\ -2 & 4 \end{pmatrix}$. Cari $A^T + B$.

Arahan	Paparan Skrin Kalkulator
MENU 4	Define Matrix 1:MatA 2:MatB 3:MatC 4:MatD
Anggap $\begin{pmatrix} 3 & -2 & 2 \\ 5 & 1 & -4 \end{pmatrix}$ sebagai Matriks A. 1	MatA Number of Rows? Select 1~4
Nyatakan baris dan lajur bagi matriks. 2 3	MatA Number of Columns? Select 1~4
Masukkan unsur bagi matriks. 3 = (-) 2 = 2 = 5 = 1 = (-) 4 =	MatA= [3 -2 2] 5 1 -4 -4
Seterusnya, anggap $\begin{pmatrix} 2 & 7 \\ 4 & 3 \\ -2 & 4 \end{pmatrix}$ sebagai Matriks B. OPTN 1 2	1:Define Matrix 2>Edit Matrix 3:Matrix Calc
Nyatakan baris dan lajur bagi matriks. 3 2	MatB Number of Columns? Select 1~4

Masukkan unsur bagi matriks. $\boxed{2} \boxed{=} \boxed{7} \boxed{=} \boxed{4} \boxed{=} \boxed{3} \boxed{=} \boxed{(-)} \boxed{2}$ $\boxed{=} \boxed{4} \boxed{=}$	
Selesaikan operasi yang diberi. $\boxed{\text{OPTN}} \boxed{3} \boxed{\text{OPTN}} \boxed{\blacktriangledown} \boxed{3} \boxed{\text{OPTN}} \boxed{3} \boxed{)} \boxed{+}$ $\boxed{\text{OPTN}} \boxed{4} \boxed{=}$	

- b) Diberi bahawa $A = \begin{pmatrix} 2 & -4 & 8 \end{pmatrix}$, $B = \begin{pmatrix} 1 & 0 & -5 \end{pmatrix}$ dan $C = \begin{pmatrix} 7 \\ -4 \\ 2 \end{pmatrix}$.
Cari $(B^T - C) - A^T$.

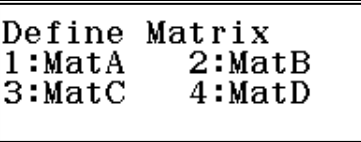
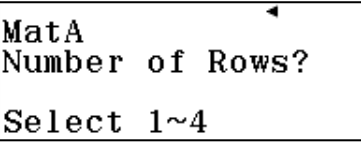
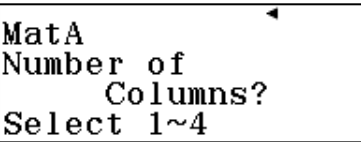
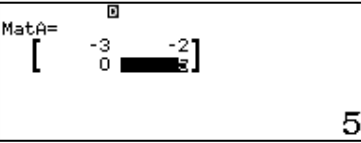
Arahan	Paparan Skrin Kalkulator
$\boxed{\text{MENU}} \boxed{4}$	
Anggap $\begin{pmatrix} 2 & -4 & 8 \end{pmatrix}$ sebagai Matriks A. $\boxed{1}$ Nyatakan baris dan lajur bagi matriks. $\boxed{1} \boxed{3}$	 
Masukkan unsur bagi matriks. $\boxed{2} \boxed{=} \boxed{(-)} \boxed{4} \boxed{=} \boxed{8} \boxed{=}$	
Seterusnya, anggap $\begin{pmatrix} 1 & 0 & -5 \end{pmatrix}$ sebagai Matriks B dan $\begin{pmatrix} 7 \\ -4 \\ 2 \end{pmatrix}$ sebagai Matriks C. Matriks B: $\boxed{\text{OPTN}} \boxed{1} \boxed{2} \boxed{1} \boxed{3} \boxed{1} \boxed{=} \boxed{0}$	

$\boxed{=}$ $\boxed{(-)}$ $\boxed{5}$ $\boxed{=}$ Matriks C: $\boxed{OPTN}$ $\boxed{1}$ $\boxed{3}$ $\boxed{3}$ $\boxed{1}$ $\boxed{7}$ $\boxed{=}$ $\boxed{(-)}$ $\boxed{4}$ $\boxed{=}$ $\boxed{2}$ $\boxed{=}$	
Selesaikan operasi yang diberi. $\boxed{OPTN}$ $\boxed{3}$ $\boxed{(}$ $\boxed{OPTN}$ $\boxed{\nabla}$ $\boxed{3}$ $\boxed{OPTN}$ $\boxed{4}$ $\boxed{)}$ $\boxed{-}$ $\boxed{OPTN}$ $\boxed{5}$ $\boxed{)}$ $\boxed{-}$ $\boxed{OPTN}$ $\boxed{\nabla}$ $\boxed{3}$ $\boxed{OPTN}$ $\boxed{3}$ $\boxed{)}$ $\boxed{=}$	

Mendarab dua matriks melibatkan transposisi (*transposition*)

2. Selesaikan setiap operasi matriks yang berikut:

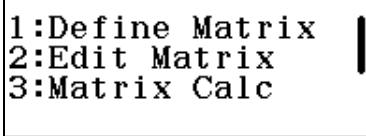
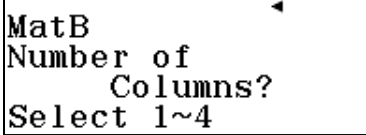
a) $\begin{pmatrix} -3 & -2 \\ 0 & 5 \end{pmatrix} \begin{pmatrix} -1 \\ 4 \end{pmatrix}$

Arahan	Paparan Skrin Kalkulator
$\boxed{MENU}$ $\boxed{4}$	
Anggap $\begin{pmatrix} -3 & -2 \\ 0 & 5 \end{pmatrix}$ sebagai Matriks A. $\boxed{1}$ Nyatakan baris dan lajur bagi matriks. $\boxed{2}$ $\boxed{2}$	 
Masukkan unsur bagi matriks. $\boxed{(-)}$ $\boxed{3}$ $\boxed{=}$ $\boxed{(-)}$ $\boxed{2}$ $\boxed{=}$ $\boxed{0}$ $\boxed{=}$ $\boxed{5}$ $\boxed{=}$	

Seterusnya, anggap $\begin{pmatrix} -1 \\ 4 \end{pmatrix}$ sebagai Matriks B. OPTN 1 2	1:Define Matrix 2:Edit Matrix 3:Matrix Calc
Nyatakan baris dan lajur bagi matriks. 2 1	MatB Number of Columns? Select 1~4
Masukkan unsur bagi matriks. (-) 1 = 4 =	MatB= [-1 4] 4
Selesaikan operasi yang diberi. OPTN 3 OPTN 3 X OPTN 4 =	MatAns= [-5 20] -5

b) $\left[\begin{pmatrix} 1 & 3 \\ 2 & 8 \\ -4 & 0 \end{pmatrix} \begin{pmatrix} 1 \\ -5 \end{pmatrix} \right]^T$

Arahan	Paparan Skrin Kalkulator
MENU 4	Define Matrix 1:MatA 2:MatB 3:MatC 4:MatD
Anggap $\begin{pmatrix} 1 & 3 \\ 2 & 8 \\ -4 & 0 \end{pmatrix}$ sebagai Matriks A. 1 Nyatakan baris dan lajur bagi matriks. 3 2	MatA Number of Rows? Select 1~4 MatA Number of Columns? Select 1~4
Masukkan unsur bagi matriks. 1 = 3 = 2 = 8 = (-) 4 = 0 =	MatA= [1 3 2 8 -4 0] 0

Seterusnya, anggap $\begin{pmatrix} 1 \\ -5 \end{pmatrix}$ sebagai Matriks B. OPTN 1 2	
Nyatakan baris dan lajur bagi matriks. 2 1	
Masukkan unsur bagi matriks. 1 = (-) 5 =	
Selesaikan operasi yang diberi. OPTN 3 OPTN ▼ 3 OPTN 3 × OPTN 4) =	