



LATIHAN MATRIKS

*Operasi Matriks

1. Diketahui matriks $R = \begin{bmatrix} 3 & 2 \\ -3 & 8 \end{bmatrix}$ dan $L = \begin{bmatrix} -6 & 2 \\ 7 & -5 \end{bmatrix}$. Hasil dari $R + L = \dots$

Penyelesaian:

*tips: Jumlahkan elemen yang seletak.

Tentukan hasil dari

$$\begin{aligned} R + L &= \begin{bmatrix} 3 & 2 \\ -3 & 8 \end{bmatrix} + \begin{bmatrix} -6 & 2 \\ 7 & -5 \end{bmatrix} \\ &= \begin{bmatrix} \dots + (\dots) & \dots + \dots \\ (\dots) + \dots & \dots + (\dots) \end{bmatrix} \\ &= \begin{bmatrix} \dots & \dots \\ \dots & \dots \end{bmatrix} \end{aligned}$$

2. Diketahui matriks $B = \begin{bmatrix} -1 & 6 & -3 \\ 9 & 10 & 5 \end{bmatrix}$, matriks $T = \begin{bmatrix} 1 & -2 & 3 \\ -4 & 5 & -6 \end{bmatrix}$, dan matriks $W = \begin{bmatrix} 5 & 0 & -8 \\ 2 & 2 & 0 \end{bmatrix}$. Hasil dari:

- $B - T = \dots$
- $3W = \dots$
- $W + B = \dots$

Tentukan hasil dari

Penyelesaian:

*tips: kurangkan 2 bilangan yang seletak

$$\begin{aligned} \text{a. } B - T &= \begin{bmatrix} -1 & 6 & -3 \\ 9 & 10 & 5 \end{bmatrix} - \begin{bmatrix} 1 & -2 & 3 \\ -4 & 5 & -6 \end{bmatrix} \\ &= \begin{bmatrix} (\dots) - \dots & \dots - (\dots) & (\dots) - \dots \\ \dots - (\dots) & \dots - \dots & \dots - (\dots) \end{bmatrix} = \begin{bmatrix} \dots & \dots & \dots \\ \dots & \dots & \dots \end{bmatrix} \end{aligned}$$

*tips: mengalikan skalar dengan setiap elemen matriks

$$\begin{aligned} \text{b. } 3W &= \dots \begin{bmatrix} 5 & 0 & -8 \\ 2 & 2 & 0 \end{bmatrix} = \begin{bmatrix} \dots \times \dots & \dots \times \dots & \dots \times (\dots) \\ \dots \times \dots & \dots \times \dots & \dots \times \dots \end{bmatrix} \\ &= \begin{bmatrix} \dots & \dots & \dots \\ \dots & \dots & \dots \end{bmatrix} \end{aligned}$$

*tips: jumlahkan setiap elemen yang seletak

$$\begin{aligned} \text{c. } W + B &= \begin{bmatrix} 5 & 0 & -8 \\ 2 & 2 & 0 \end{bmatrix} + \begin{bmatrix} -1 & 6 & -3 \\ 9 & 10 & 5 \end{bmatrix} \\ &= \begin{bmatrix} \dots + (\dots) & \dots + \dots & (\dots) + (\dots) \\ \dots + \dots & \dots + \dots & \dots + \dots \end{bmatrix} = \begin{bmatrix} \dots & \dots & \dots \\ \dots & \dots & \dots \end{bmatrix} \end{aligned}$$