

BAB2 : MATRIKS

1 $\begin{bmatrix} -2 \\ 3 \end{bmatrix} + \begin{bmatrix} 5 \\ 8 \end{bmatrix} - \frac{1}{3} \begin{bmatrix} 15 \\ 27 \end{bmatrix} =$

A $\begin{bmatrix} 2 \\ 3 \end{bmatrix}$

B $\begin{bmatrix} 10 \\ 20 \end{bmatrix}$

C $\begin{bmatrix} -2 \\ 2 \end{bmatrix}$

D $\begin{bmatrix} 12 \\ 20 \end{bmatrix}$

- 2 Diberi bahawa matriks $P = \begin{bmatrix} p_{11} \\ p_{21} \\ p_{31} \end{bmatrix}$ dan matriks $Q = \begin{bmatrix} q_{11} & q_{12} \end{bmatrix}$. Hasil darab P dan Q akan menghasilkan matriks berperingkat

Given matrix $P = \begin{bmatrix} p_{11} \\ p_{21} \\ p_{31} \end{bmatrix}$ and matrix $Q = \begin{bmatrix} q_{11} & q_{12} \end{bmatrix}$. The product of P and Q will be a matrix in an order of

A 1×1

B 1×2

C 3×1

D 3×2

- 3 Tulis persamaan linear berikut dalam bentuk matriks :

Write the linear equations below in matrix form:

$$2x - 8 = y$$

$$x - 2y = 7$$

A $\begin{bmatrix} 2 & -8 \\ 1 & -2 \end{bmatrix} \begin{bmatrix} x \\ y \end{bmatrix} = \begin{bmatrix} 1 \\ 7 \end{bmatrix}$

B $\begin{bmatrix} 2 & -8 \\ 1 & -2 \end{bmatrix} \begin{bmatrix} y \\ x \end{bmatrix} = \begin{bmatrix} 1 \\ 7 \end{bmatrix}$

C $\begin{bmatrix} 2 & -1 \\ 1 & -2 \end{bmatrix} \begin{bmatrix} x \\ y \end{bmatrix} = \begin{bmatrix} 8 \\ 7 \end{bmatrix}$

D $\begin{bmatrix} 2 & -1 \\ 1 & -2 \end{bmatrix} \begin{bmatrix} y \\ x \end{bmatrix} = \begin{bmatrix} 8 \\ 7 \end{bmatrix}$

- 4 Diberi matriks songsang bagi $\begin{bmatrix} 1 & 1 \\ a & b \end{bmatrix}$ ialah $\frac{1}{x} \begin{bmatrix} 6 & -1 \\ -9 & 1 \end{bmatrix}$ cari nilai x .

Given the inverse matrix of $\begin{bmatrix} 1 & 1 \\ a & b \end{bmatrix}$ is $\frac{1}{x} \begin{bmatrix} 6 & -1 \\ -9 & 1 \end{bmatrix}$ find the value of x .

A -3

B 3

C 15

D -15

- 5 Diberi $\begin{bmatrix} -2 & 4 \\ 5 & -2 \end{bmatrix} \begin{bmatrix} a \\ b \end{bmatrix} = \begin{bmatrix} 14 \\ -11 \end{bmatrix}$, cari nilai $b - a$.

Given that $\begin{bmatrix} -2 & 4 \\ 5 & -2 \end{bmatrix} \begin{bmatrix} a \\ b \end{bmatrix} = \begin{bmatrix} 14 \\ -11 \end{bmatrix}$, find the value of $b - a$.

A -1

B 2

C 3

D 4

- 6 Diberi $\begin{bmatrix} 6 & 4x \\ 1 & 3 \end{bmatrix} = \begin{bmatrix} 2y & 4 \\ 1 & 3 \end{bmatrix}$, cari nilai x dan y .

Given that $\begin{bmatrix} 6 & 4x \\ 1 & 3 \end{bmatrix} = \begin{bmatrix} 2y & 4 \\ 1 & 3 \end{bmatrix}$ find the value of x and of y .

- A $x = 1, y = 2$
- B $x = 1, y = 3$
- C $x = 4, y = 3$
- D $x = 2, y = 2$

- 7 Diberi bahawa penentu kepada $\begin{bmatrix} a & 10 \\ 11 & 10 \end{bmatrix}$ ialah 30. Cari nilai a .

It is given that the determinant of $\begin{bmatrix} a & 10 \\ 11 & 10 \end{bmatrix}$ is 30. Find the value of a .

- A 11
- B 12
- C 13
- D 14

- 8 Diberi $\begin{bmatrix} 3 & 4 \\ 2 & 1 \end{bmatrix} \begin{bmatrix} 4 \\ 2 \end{bmatrix} = 2x \begin{bmatrix} 2 \\ 1 \end{bmatrix}$, Hitung nilai x .

Given that $\begin{bmatrix} 3 & 4 \\ 2 & 1 \end{bmatrix} \begin{bmatrix} 4 \\ 2 \end{bmatrix} = 2x \begin{bmatrix} 2 \\ 1 \end{bmatrix}$, Calculate the value of x .

- A $\frac{1}{3}$
- B 5
- C 2
- D $\frac{1}{2}$

- 9 Diberi matriks $A = \begin{bmatrix} 5 & -1 \\ -3 & 7 \\ 2 & 6 \end{bmatrix}$, hitung nilai $a_{21} - a_{12}$.

Given that matrix $A = \begin{bmatrix} 5 & -1 \\ -3 & 7 \\ 2 & 6 \end{bmatrix}$, calculate the value of $a_{21} - a_{12}$.

- A** - 4
- B** - 2
- C** 2
- D** 4

- 10 Diberi bahawa matriks $P = \begin{bmatrix} 2 & 4 \\ x & 6 \end{bmatrix}$. Hitung nilai x jika matriks P tidak mempunyai matriks songsang.

It is given that matrix $P = \begin{bmatrix} 2 & 4 \\ x & 6 \end{bmatrix}$. Calculate the value of x if matrix P does not have inverse matrix.

- A** 1
- B** 2
- C** 3
- D** 4