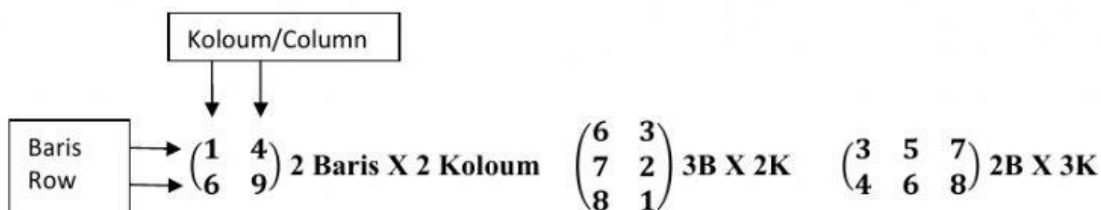


JENIS² MATRIK /TYPE OF MATRICES
(PAPER 1: 2 SOALAN/QUESTIONS)



PENAMBAHAN DAN PENOLAKAN

ADDITION AND SUBTRACTION OF MATRICES

- Penambahan dan penolakan matrik yang boleh dijalankan oleh matrik yang sama jenis
- *Addition and subtraction of matrices can only be carried out for matrices of the same order.*

Contoh/Example:

(a) $\begin{pmatrix} 4 & 2 \\ 1 & 1 \end{pmatrix} + \begin{pmatrix} 3 & 6 \\ 7 & -1 \end{pmatrix} = \begin{pmatrix} 7 & 8 \\ 8 & 0 \end{pmatrix}$

(b) $\begin{pmatrix} 4 \\ -7 \end{pmatrix} + \begin{pmatrix} -5 \\ 9 \end{pmatrix} = \begin{pmatrix} -1 \\ 2 \end{pmatrix}$

(c) $\begin{pmatrix} -2 & 2 & 3 \\ 1 & -1 & 6 \end{pmatrix} - \begin{pmatrix} -1 & -5 & 0 \\ -4 & -4 & 2 \end{pmatrix} = \begin{pmatrix} -1 & 7 & 3 \\ 5 & 3 & 4 \end{pmatrix}$

(d) Hitung nilai x dan y /Calculate the values of x and y such that

$\begin{pmatrix} 5 \\ -3 \end{pmatrix} + \begin{pmatrix} x \\ 7 \end{pmatrix} = \begin{pmatrix} 9 \\ -11 \end{pmatrix}$

$x + 2 = -1$
 $\therefore x = -3$

$5 + y + 3 = 9$
 $y + 8 = 9$
 $\therefore y = 1$

Latihan 1 / Exercise 1 : Selesaikan / Solve each of the following.

$$1. \begin{pmatrix} 8 \\ 5 \end{pmatrix} + \begin{pmatrix} -2 \\ 6 \end{pmatrix} + \begin{pmatrix} 1 \\ 3 \end{pmatrix} = \begin{pmatrix} \square \\ \square \end{pmatrix}$$

$$2. \begin{pmatrix} 1 & 3 \\ 0 & -7 \end{pmatrix} + \begin{pmatrix} -4 & 1 \\ 3 & -2 \end{pmatrix} = \begin{pmatrix} \square & \square \\ \square & \square \end{pmatrix}$$

$$3. \begin{pmatrix} 2 & 1 \\ -4 & 0 \\ 7 & 3 \end{pmatrix} - \begin{pmatrix} 3 & -2 \\ -1 & 5 \\ 0 & 2 \end{pmatrix} + \begin{pmatrix} -6 & 3 \\ 2 & -2 \\ 1 & 0 \end{pmatrix} = \begin{pmatrix} \square & \square \\ \square & \square \\ \square & \square \end{pmatrix}$$

4. Calculate the values of x and y such that

$$(a) \begin{pmatrix} x \\ -2 \end{pmatrix} + \begin{pmatrix} 4 \\ y+8 \end{pmatrix} = \begin{pmatrix} 7-2x \\ 3 \end{pmatrix}$$

$$x+4=7-2x$$

$$-2+y+8=3$$

$$\square = 3$$

$$y+6=3$$

$$x = \square$$

$$y = \square$$

EXERCISES:**B. OPERASI KE ATAS MATRIKS**
*OPERATION ON MATRIX***1. Penambahan dan penolakkan.**
Additions and subtractions.

a) $\begin{pmatrix} 1 & -3 \\ 2 & -4 \end{pmatrix} + \begin{pmatrix} 3 & 6 \\ -5 & -8 \end{pmatrix}$

$$\begin{pmatrix} \square & \square \\ \square & \square \end{pmatrix}$$

b) $\begin{pmatrix} -3 & -5 & 4 \end{pmatrix} - \begin{pmatrix} 1 & -2 & 7 \end{pmatrix}$

$$\begin{pmatrix} \square & \square & \square \end{pmatrix}$$

c) $\begin{pmatrix} 8 \\ 6 \\ -1 \end{pmatrix} + \begin{pmatrix} 4 \\ -3 \\ 2 \end{pmatrix} - \begin{pmatrix} 4 \\ -1 \\ 8 \end{pmatrix}$

$$\begin{pmatrix} \square \\ \square \\ \square \end{pmatrix}$$

(d) $\begin{pmatrix} -2 & 4 \\ 10 & -8 \end{pmatrix} + \begin{pmatrix} -3 & -5 \\ 6 & -7 \end{pmatrix}$

$$\begin{pmatrix} \square & \square \\ \square & \square \end{pmatrix}$$

(e) $\begin{pmatrix} 17 & 9 \end{pmatrix} + \begin{pmatrix} -8 & -5 \end{pmatrix} - \begin{pmatrix} 4 & 6 \end{pmatrix}$

$$\begin{pmatrix} \square & \square \end{pmatrix}$$

Find the value of x and y below.

(a) $\begin{pmatrix} 1 & 3 \\ 2 & x \end{pmatrix} + \begin{pmatrix} 5 & 6 \\ 0 & -3 \end{pmatrix} = \begin{pmatrix} 6 & -y \\ 2 & -5 \end{pmatrix}$

$$x = \square$$

$$y = \square$$

(b) $\begin{pmatrix} 10 \\ 2x \end{pmatrix} = \begin{pmatrix} 5y \\ 18 \end{pmatrix}$

$$x = \square$$

$$y = \square$$