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P.Studi : Ilmu Komputer

1.

$$\begin{aligned} \textcircled{1.} \quad & 3x + 5y - 2z = 5 \\ & 10x - 3y - 2z = 11 \\ & 4x + 2y + 3z = 19 \end{aligned}$$

Jawab:

Dengan Metode Eliminasi Gauss

- Rubah dalam bentuk matriks yang diperbesar

$$\begin{bmatrix} 3 & 5 & -2 \\ 10 & -3 & -2 \\ 4 & 2 & 3 \end{bmatrix} \begin{bmatrix} x \\ y \\ z \end{bmatrix} = \begin{bmatrix} 5 \\ 11 \\ 19 \end{bmatrix}$$

$$\begin{bmatrix} 3 & 5 & -2 & : & 5 \\ 10 & -3 & -2 & : & 11 \\ 4 & 2 & 3 & : & 19 \end{bmatrix}$$

- Lakukan transformasi atau baris operasi elementer baris atau kolom dari matriks diperbesar sampai terbentuk matriks segitiga atas

1.  $3R_2 - 10R_1$

$$\begin{bmatrix} 3 & 5 & -2 & : & 5 \\ 0 & -59 & 14 & : & 17 \\ 4 & 2 & 3 & : & 19 \end{bmatrix}$$

2.  $3R_3 - 4R_1$

$$\begin{bmatrix} 3 & 5 & -2 & : & 5 \\ 0 & -59 & 14 & : & 17 \\ 0 & -14 & 17 & : & 37 \end{bmatrix}$$

3.  $59R_3 - 14R_2$

$$\begin{bmatrix} 3 & 5 & -2 & : & 5 \\ 0 & -59 & 14 & : & 17 \\ 0 & 0 & 807 & : & 2421 \end{bmatrix}$$

4.  $\frac{1}{3}R_1; -\frac{1}{59}R_2; \frac{1}{807}R_3$

$$\begin{bmatrix} 1 & \frac{5}{3} & -\frac{2}{3} & : & \frac{5}{3} \\ 0 & 1 & -\frac{14}{59} & : & \frac{17}{59} \\ 0 & 0 & 1 & : & \frac{2421}{807} \end{bmatrix}$$

- Kembalikan dalam bentuk matriks

$$\begin{bmatrix} 1 & 5/3 & -2/3 \\ 0 & 1 & -14/59 \\ 0 & 0 & 1 \end{bmatrix} \begin{bmatrix} x \\ y \\ z \end{bmatrix} = \begin{bmatrix} 5/3 \\ 17/59 \\ 2421/807 \end{bmatrix}$$

- Kembalikan dalam bentuk sistem persamaan linear

$$x + 5/3 y - 2/3 z = 5/3$$

$$y - 14/59 z = 17/59$$

$$z = \frac{2421}{807}$$

- Substitusikan nilai variabel

$$1) z = \frac{2421}{807} = 3$$

$$2) y - \frac{14}{59} \cdot z = \frac{17}{59}$$

$$y - \frac{14}{59} \cdot 3 = \frac{17}{59}$$

$$y - \frac{42}{59} = \frac{17}{59}$$

$$\begin{aligned} y &= \frac{17}{59} + \frac{42}{59} \\ &= \frac{59}{59} \\ &= 1 \end{aligned}$$

$$3) x + \frac{5}{3} y - \frac{2}{3} z = \frac{5}{3}$$

$$x + \frac{5}{3} \cdot 1 - \frac{2}{3} \cdot 3 = \frac{5}{3}$$

$$x + \frac{5}{3} - \frac{6}{3} = \frac{5}{3}$$

$$x - \frac{1}{3} = \frac{5}{3}$$

$$x = \frac{5}{3} + \frac{1}{3}$$

$$x = \frac{6}{3}$$

$$x = 2$$

Jadi nilai  $x = 2$ ,  $y = 1$  dan  $z = 3$



2.

②

$$5x_1 + 2x_2 - 3x_4 = 1$$

$$x_1 - x_2 + x_3 = 6$$

$$2x_1 + 2x_2 + 3x_3 - 3x_4 = -5$$

$$-3x_1 - x_2 + 4x_3 + x_4 = -1$$

Jawab:

Dengan metode Cramer.

- Sempurnakan sistem persamaan linearnya

$$5x_1 + 2x_2 + 0 - 3x_4 = 1$$

$$x_1 - x_2 + x_3 + 0 = 6$$

$$2x_1 + 2x_2 + 3x_3 - 3x_4 = -5$$

$$-3x_1 - x_2 + 4x_3 + x_4 = -1$$

- Rubah sistem persamaan linear dalam bentuk matriks

$$\begin{bmatrix} 5 & 2 & 0 & -3 \\ 1 & -1 & 1 & 0 \\ 2 & 2 & 3 & -3 \\ -3 & -1 & 4 & 1 \end{bmatrix} \begin{bmatrix} x_1 \\ x_2 \\ x_3 \\ x_4 \end{bmatrix} = \begin{bmatrix} 1 \\ 6 \\ -5 \\ -1 \end{bmatrix}$$

$$[A] \quad [x] = [k]$$

- $[A] = \begin{bmatrix} 5 & 2 & 0 & -3 \\ 1 & -1 & 1 & 0 \\ 2 & 2 & 3 & -3 \\ -3 & -1 & 4 & 1 \end{bmatrix}$

maka

$$1.) |A| = \begin{vmatrix} 5 & 2 & 0 & -3 \\ 1 & -1 & 1 & 0 \\ 2 & 2 & 3 & -3 \\ -3 & -1 & 4 & 1 \end{vmatrix}$$

•  $a_{11}$

$$\begin{vmatrix} -1 & 1 & 0 & -1 & 1 \\ 2 & 3 & -3 & 2 & 3 \\ -1 & 4 & 1 & -1 & 4 \end{vmatrix} = -3 + 3 + 0 - 0 - 12 - 2 = -14$$

•  $a_{12}$

$$\begin{vmatrix} 1 & 1 & 0 & 1 & 1 \\ 2 & 3 & -3 & 2 & 3 \\ -3 & 4 & 1 & -3 & 4 \end{vmatrix} = 3 + 9 + 0 + 0 + 12 - 2 = 22$$

$$\bullet a_{14} = \begin{vmatrix} 1 & -1 & 1 & 1 & -1 \\ 2 & 2 & 3 & 2 & 2 \\ -3 & -1 & 4 & -3 & -1 \end{vmatrix} = 8 + 9 - 2 + 6 + 3 + 8 = 32$$

$$\begin{aligned} \text{Jadi } |A| &= 5(-14) - 2(22) + 0 + 3(32) \\ &= -70 - 44 + 0 + 96 \\ &= -18 \end{aligned}$$

$$2.) |A_1| = \begin{bmatrix} + & - & + & - \\ 1 & 2 & 0 & -3 \\ 6 & -1 & 1 & 0 \\ -5 & 2 & 3 & -3 \\ -1 & -1 & 4 & 1 \end{bmatrix}$$

$$\bullet a_{11} = \begin{vmatrix} -1 & 1 & 0 & -1 & 1 \\ 2 & 3 & -3 & 2 & 3 \\ -1 & 4 & 1 & -1 & 4 \end{vmatrix} = -3 + 3 + 0 + 0 - 12 - 2 = -14$$

$$\bullet a_{12} = \begin{vmatrix} 6 & 1 & 0 & 6 & 0 \\ -5 & 3 & -3 & -5 & -3 \\ -1 & 4 & 1 & -1 & 1 \end{vmatrix} = 18 + 3 - 0 + 0 + 72 + 5 = 98$$

$$\bullet a_{14} = \begin{vmatrix} 6 & -1 & 1 & 6 & -1 \\ -5 & 2 & 3 & -5 & 2 \\ -1 & -1 & 4 & -1 & -1 \end{vmatrix} = 48 + 3 + 5 + 2 + 18 - 20 = 56$$

$$\begin{aligned} \text{Jadi } |A_1| &= 1(-14) - 2(98) + 0 + 3(56) \\ &= -14 - 196 + 0 + 168 \\ &= -42 \end{aligned}$$

$$3.) |A_2| = \begin{bmatrix} + & - & + & - \\ 5 & 1 & 0 & -3 \\ 1 & 6 & 1 & 0 \\ 2 & -5 & 3 & -3 \\ -3 & -1 & 4 & 1 \end{bmatrix}$$

$$\bullet a_{11} = \begin{vmatrix} 6 & 1 & 0 & 6 & 1 \\ -5 & 3 & -3 & -5 & 3 \\ -1 & 4 & 1 & -1 & 4 \end{vmatrix} = 18 + 3 - 0 + 0 + 72 + 5 = 98$$

$$\bullet a_{12} = \begin{vmatrix} 1 & 1 & 0 & 1 & 1 \\ 2 & 3 & -3 & 2 & 3 \\ -3 & 4 & 1 & -3 & 4 \end{vmatrix} = 3 + 9 + 0 + 0 + 12 - 2 = 22$$



$$\bullet a_{14} = \begin{vmatrix} 1 & 6 & 1 & 6 \\ 2 & -5 & 3 & 2 \\ -3 & -1 & 4 & -3 \end{vmatrix} = -20 - 54 - 2 - 15 + 3 - 48 = -136$$

$$\begin{aligned} \text{Jadi } |A_2| &= 5(98) - 1(22) + 0 + 3(-136) \\ &= 490 - 22 + 0 - 408 \\ &= 60 \end{aligned}$$

$$4) |A_3| = \begin{vmatrix} + & - & + & - \\ 5 & 2 & 1 & -3 \\ 1 & -1 & 6 & 0 \\ 2 & 2 & -5 & -3 \\ -3 & -1 & -1 & 1 \end{vmatrix} *$$

$$\bullet a_{11} = \begin{vmatrix} -1 & 6 & 0 & -1 & 6 \\ 2 & -5 & -3 & 2 & -5 \\ -1 & -1 & 1 & -1 & -1 \end{vmatrix} = 5 + 18 + 0 - 0 + 3 - 12 = 14$$

$$\bullet a_{12} = \begin{vmatrix} 1 & 6 & 0 & 1 & 6 \\ 2 & -5 & -3 & 2 & -5 \\ -3 & -1 & 1 & -3 & -1 \end{vmatrix} = -5 + 54 - 0 - 0 - 3 - 12 = 34$$

$$\bullet a_{13} = \begin{vmatrix} 1 & -1 & 0 & 1 & -1 \\ 2 & 2 & -3 & 2 & 2 \\ -3 & -1 & 1 & -3 & -1 \end{vmatrix} = 2 - 9 - 0 + 0 - 3 + 2 = -8$$

$$\bullet a_{14} = \begin{vmatrix} 1 & -1 & 6 & 1 & -1 \\ 2 & 2 & -5 & 2 & 2 \\ -3 & -1 & -1 & -3 & -1 \end{vmatrix} = -2 - 15 - 12 + 36 - 5 - 2 = 0$$

$$\begin{aligned} \text{Jadi } |A_3| &= 5(14) - 2(34) + 1(-8) + 3(0) \\ &= 70 - 68 - 8 + 0 \\ &= -6 \end{aligned}$$

$$5) |A_4| = \begin{vmatrix} + & - & + & - \\ 5 & 2 & 0 & 1 \\ 1 & -1 & 1 & 6 \\ 2 & 2 & 3 & -5 \\ -3 & -1 & 4 & -1 \end{vmatrix}$$

$$\bullet a_{11} = \begin{vmatrix} -1 & 1 & 6 & -1 & 1 \\ 2 & 3 & -5 & 2 & 3 \\ -1 & 4 & -1 & -1 & 4 \end{vmatrix} = 3 + 5 + 48 + 18 - 20 + 2 = 56$$

$$\bullet a_{12} = \begin{vmatrix} 1 & 1 & 6 \\ 2 & 3 & -5 \\ -3 & 4 & -1 \end{vmatrix} \begin{vmatrix} 1 & 1 \\ 2 & 3 \\ -3 & 4 \end{vmatrix} = -3 + 15 + 48 + 54 + 20 + 2 = 136$$

$$\bullet a_{14} = \begin{vmatrix} 1 & -1 & 1 \\ 2 & 2 & 3 \\ -3 & -1 & 4 \end{vmatrix} \begin{vmatrix} 1 & -1 \\ 2 & 2 \\ -3 & -1 \end{vmatrix} = 8 + 9 - 2 + 6 + 3 + 8 = 32$$

$$\begin{aligned} \text{Jadi } |A_4| &= 5(56) - 2(136) + 0 - 1(32) \\ &= 280 - 272 + 0 - 32 \\ &= -24 \end{aligned}$$

Sehingga

$$x_1 = \frac{|A_1|}{|A|} = \frac{-42}{-18} = \frac{7}{3} \text{ atau } 2,3333\dots$$

$$x_2 = \frac{|A_2|}{|A|} = \frac{60}{-18} = -\frac{10}{3} \text{ atau } -3,3333\dots$$

$$x_3 = \frac{|A_3|}{|A|} = \frac{-6}{-18} = \frac{1}{3} \text{ atau } 0,3333\dots$$

$$x_4 = \frac{|A_4|}{|A|} = \frac{-24}{-18} = \frac{4}{3} \text{ atau } 1,3333\dots$$

$$\text{Jadi } x_1 = \frac{7}{3} \text{ atau } 2,3333\dots$$

$$x_2 = -\frac{10}{3} \text{ atau } -3,3333\dots$$

$$x_3 = \frac{1}{3} \text{ atau } 0,3333\dots$$

$$x_4 = \frac{4}{3} \text{ atau } 1,3333\dots$$



3.

$$\textcircled{3} \quad \begin{aligned} 3y + 9x &= -12 \\ x + y &= -8 \end{aligned}$$

Jawab :

Dengan metode Invers Matriks

- Sempurnakan susunan sistem persamaan linear

$$9x + 3y = -12$$

$$x + y = -8$$

- Rubah sistem persamaan linear dalam bentuk matriks

$$\begin{bmatrix} 9 & 3 \\ 1 & 1 \end{bmatrix} \begin{bmatrix} x \\ y \end{bmatrix} = \begin{bmatrix} -12 \\ -8 \end{bmatrix}$$

$$[A] [x] = [K]$$

- Dengan metode invers matriks dapat dirumuskan

$$[x] = [A^{-1}] [K]$$

Dimana

$$[x] = \begin{bmatrix} x \\ y \end{bmatrix}$$

$$[A] = \begin{bmatrix} 9 & 3 \\ 1 & 1 \end{bmatrix}$$

$$[A^{-1}] = \frac{\text{Adj}(A)}{|A|} = \frac{\begin{bmatrix} 1 & -3 \\ -1 & 9 \end{bmatrix}}{6} = \begin{bmatrix} \frac{1}{6} & -\frac{1}{2} \\ -\frac{1}{6} & \frac{3}{2} \end{bmatrix}$$

$$[K] = \begin{bmatrix} -12 \\ -8 \end{bmatrix}$$

Sehingga

$$[x] = [A^{-1}] [K]$$

$$\begin{bmatrix} x \\ y \end{bmatrix} = \begin{bmatrix} \frac{1}{6} & -\frac{1}{2} \\ -\frac{1}{6} & \frac{3}{2} \end{bmatrix} \begin{bmatrix} -12 \\ -8 \end{bmatrix}$$

$$\begin{bmatrix} x \\ y \end{bmatrix} = \begin{bmatrix} -2 + 4 \\ 2 - 12 \end{bmatrix}$$

$$\begin{bmatrix} x \\ y \end{bmatrix} = \begin{bmatrix} 2 \\ -10 \end{bmatrix}$$

Jadi  $x = 2$  dan  $y = -10$

4.

$$\begin{aligned} \textcircled{A.} \quad & x + y + z = 0 \\ & x + 3z + y = 2 \\ & 2x - 3y - 5z = 8 \end{aligned}$$

Jawab:

Dengan Metode Invers Matriks

- Sempurnakan susunan sistem pers. linear

$$\begin{aligned} x + y + z &= 0 \\ x + y + 3z &= 2 \\ 2x - 3y - 5z &= 8 \end{aligned}$$

- Rubah sistem pers. linear dalam bentuk matriks.

$$\begin{bmatrix} 1 & 1 & 1 \\ 1 & 1 & 3 \\ 2 & -3 & -5 \end{bmatrix} \begin{bmatrix} x \\ y \\ z \end{bmatrix} = \begin{bmatrix} 0 \\ 2 \\ 8 \end{bmatrix}$$

$$[A] \quad [X] = [K]$$

- Dengan metode invers matriks dapat dirumuskan

$$[X] = [A^{-1}][K]$$

Dimana

$$[A] = \begin{bmatrix} 1 & 1 & 1 \\ 1 & 1 & 3 \\ 2 & -3 & -5 \end{bmatrix}$$

$$[X] = \begin{bmatrix} x \\ y \\ z \end{bmatrix}$$

$$[A^{-1}] = \frac{\text{Adj}(B)}{|B|} = \frac{\begin{bmatrix} 4 & 2 & 2 \\ 11 & -7 & -2 \\ -5 & 5 & 0 \end{bmatrix}}{10} = \begin{bmatrix} 2/5 & 1/5 & 1/5 \\ 11/10 & -7/10 & -1/5 \\ -1/2 & 1/2 & 0 \end{bmatrix}$$

$$[K] = \begin{bmatrix} 0 \\ 2 \\ 8 \end{bmatrix}$$

Sehingga

$$[X] = [A^{-1}][K]$$

$$\begin{bmatrix} x \\ y \\ z \end{bmatrix} = \begin{bmatrix} 2/5 & 1/5 & 1/5 \\ 11/10 & -7/10 & -1/5 \\ -1/2 & 1/2 & 0 \end{bmatrix} \begin{bmatrix} 0 \\ 2 \\ 8 \end{bmatrix} = \begin{bmatrix} 0 + 2/5 + 8/5 \\ 0 + 7/5 - 8/5 \\ 0 + 1 + 0 \end{bmatrix} = \begin{bmatrix} 2 \\ -3 \\ 1 \end{bmatrix}$$

Jadi  $x = 2$ ,  $y = -3$  dan  $z = 1$



5.

$$(5) \quad 2y - 3x - 2z - 10 = 0$$

$$3z - 2y + 12 = -5x$$

$$7x + 4y - 7 = 20 - 5z$$

Jawab:

Dengan Metode Baris Elemen

- Sempurnakan susunan sistem pers. linear

$$-3x + 2y - 2z = 10$$

$$5x - 2y + 3z = -12$$

$$7x + 4y + 5z = 27$$

- Rubah dalam bentuk matriks yang diperbesar

$$\begin{bmatrix} -3 & 2 & -2 \\ 5 & -2 & 3 \\ 7 & 4 & 5 \end{bmatrix} \begin{bmatrix} x \\ y \\ z \end{bmatrix} = \begin{bmatrix} 10 \\ -12 \\ 27 \end{bmatrix} \quad \text{maka} \quad \begin{bmatrix} -3 & 2 & -2 & : & 10 \\ 5 & -2 & 3 & : & -12 \\ 7 & 4 & 5 & : & 27 \end{bmatrix}$$

- Lakukan transformasi atau operasi elementer pada baris atau kolom dari matriks diperbesar sampai terbentuk matriks identitas.

$$1. \quad 3R_2 + 5R_1$$

$$\begin{bmatrix} -3 & 2 & -2 & : & 10 \\ 0 & 4 & -1 & : & 14 \\ 7 & 4 & 5 & : & 27 \end{bmatrix}$$

$$2. \quad 3R_3 + 7R_1$$

$$\begin{bmatrix} -3 & 2 & -2 & : & 10 \\ 0 & 4 & -1 & : & 14 \\ 0 & 26 & 1 & : & 151 \end{bmatrix}$$

$$3. \quad 4R_3 - 26R_2$$

$$\begin{bmatrix} -3 & 2 & -2 & : & 10 \\ 0 & 4 & -1 & : & 14 \\ 0 & 0 & 30 & : & 240 \end{bmatrix}$$

$$4. \quad 30R_2 + R_3$$

$$\begin{bmatrix} -3 & 2 & -2 & : & 10 \\ 0 & 120 & 0 & : & 660 \\ 0 & 0 & 30 & : & 240 \end{bmatrix}$$

$$5. \quad 30R_1 + 2R_3$$

$$\begin{bmatrix} -90 & 60 & 0 & : & 780 \\ 0 & 120 & 0 & : & 660 \\ 0 & 0 & 30 & : & 240 \end{bmatrix}$$

$$\bullet 2R_1 - R_2$$

$$\begin{bmatrix} -180 & 0 & 0 & : & 900 \\ 0 & 120 & 0 & : & 660 \\ 0 & 0 & 30 & : & 240 \end{bmatrix}$$

$$\rightarrow -\frac{1}{180}R_1 ; \frac{1}{120}R_2 ; \frac{1}{30}R_3$$

$$\begin{bmatrix} 1 & 0 & 0 & : & -\frac{900}{180} \\ 0 & 1 & 0 & : & \frac{660}{120} \\ 0 & 0 & 1 & : & \frac{240}{30} \end{bmatrix} = \begin{bmatrix} 1 & 0 & 0 & : & -5 \\ 0 & 1 & 0 & : & 5\frac{1}{2} \\ 0 & 0 & 1 & : & 8 \end{bmatrix}$$

- Kembalikan dalam bentuk sistem pers. linear

$$x = -5$$

$$y = 5\frac{1}{2}$$

$$z = 8$$

- Tentukan nilai variabel

$$\text{Maka nilai } x = -5$$

$$y = 5\frac{1}{2} \text{ atau } 5,5$$

$$z = 8$$



6.

⑥. Diketahui

$$[A] = \begin{bmatrix} 3 & 7 & 4 \\ 2 & 3 & -2 \\ 7 & 3 & 2 \end{bmatrix} \text{ dan } [B] = \begin{bmatrix} 2 \\ -16 \\ 31 \end{bmatrix}$$

Tentukan  $[c]$  sehingga  $[A][c] = [B]$

Jawab:

Dengan Metode Eliminasi Gauss

- Rubah dalam bentuk matriks yang diperbesar

$$\begin{bmatrix} 3 & 7 & 4 \\ 2 & 3 & -2 \\ 7 & 3 & 2 \end{bmatrix} \begin{bmatrix} I \\ T \\ A \end{bmatrix} = \begin{bmatrix} 2 \\ -16 \\ 31 \end{bmatrix}$$

$$[A] [c] = [B]$$

- Lakukan transformasi atau operasi elementer pada baris atau kolom dari matriks diperbesar sampai terbentuk matriks segitiga atas.

1.  $3R_2 - 2R_1$

$$\begin{bmatrix} 3 & 7 & 4 & : & 2 \\ 0 & -5 & -14 & : & -52 \\ 7 & 3 & 2 & : & 31 \end{bmatrix}$$

2.  $3R_3 - 7R_1$

$$\begin{bmatrix} 3 & 7 & 4 & : & 2 \\ 0 & -5 & -14 & : & -52 \\ 0 & -40 & -22 & : & 79 \end{bmatrix}$$

3.  $R_3 - 8R_2$

$$\begin{bmatrix} 3 & 7 & 4 & : & 2 \\ 0 & -5 & -14 & : & -52 \\ 0 & 0 & 90 & : & 495 \end{bmatrix}$$

4.  $\frac{1}{3}R_1 ; -\frac{1}{5}R_2 ; \frac{1}{90}R_3$

$$\begin{bmatrix} 1 & 7/3 & 4/3 & : & 2/3 \\ 0 & 1 & 14/5 & : & 52/5 \\ 0 & 0 & 1 & : & 495/90 \end{bmatrix} = \begin{bmatrix} 1 & 7/3 & 4/3 & : & 2/3 \\ 0 & 1 & 14/5 & : & 52/5 \\ 0 & 0 & 1 & : & 1/2 \end{bmatrix}$$

- Kembalikan dalam bentuk matriks

$$\begin{bmatrix} 1 & 7/3 & 1/3 \\ 0 & 1 & 14/5 \\ 0 & 0 & 1 \end{bmatrix} \begin{bmatrix} I \\ T \\ A \end{bmatrix} = \begin{bmatrix} 2/3 \\ 52/5 \\ 11/2 \end{bmatrix}$$

$[A] \quad [C] = [B]$

- Kembalikan dalam bentuk pers. linear

$$I + 7/3 T + 1/3 A = 2/3$$

$$T + 14/5 A = 52/5$$

$$A = 11/2$$

- Substitusikan nilai variabel

1.  $A = 11/2$

2.  $T + \frac{14}{5} A = \frac{52}{5}$

$$T + \frac{14}{5} \cdot \frac{11}{2} = \frac{52}{5}$$

$$T + \frac{154}{10} = \frac{52}{5}$$

$$T = \frac{52}{5} - \frac{154}{10}$$

$$= \frac{104 - 154}{10}$$

$$T = -\frac{50}{10}$$

$$T = -5$$

3.  $I + 7/3 T + 1/3 A = 2/3$

$$I + 7/3 \cdot -5 + 1/3 \cdot 11/2 = 2/3$$

$$I + \left(-\frac{35}{3}\right) + \frac{11}{6} = \frac{2}{3}$$

$$I - \frac{70 + 11}{6} = \frac{2}{3}$$

$$I - \frac{81}{6} = \frac{2}{3}$$

$$I = \frac{2}{3} + \frac{27}{2}$$

$$I = \frac{4 + 27}{2}$$

$$I = \frac{31}{2}$$

$$I = 15.5$$



$$\text{Jadi } [C] = \begin{bmatrix} 1 \\ T \\ A \end{bmatrix} = \begin{bmatrix} 5 \\ -5 \\ 11/2 \end{bmatrix}$$

Sehingga

$$[A][C] = [B]$$

$$\begin{bmatrix} 3 & 7 & 4 \\ 2 & 3 & -2 \\ 7 & 3 & 2 \end{bmatrix} \begin{bmatrix} 5 \\ -5 \\ 11/2 \end{bmatrix} = \begin{bmatrix} 2 \\ -16 \\ 31 \end{bmatrix}$$

$$\begin{bmatrix} 15 - 35 + 22 \\ 10 - 15 - 11 \\ 35 - 15 + 11 \end{bmatrix} = \begin{bmatrix} 2 \\ -16 \\ 31 \end{bmatrix}$$

$$\begin{bmatrix} 2 \\ -16 \\ 31 \end{bmatrix} = \begin{bmatrix} 2 \\ -16 \\ 31 \end{bmatrix}$$