

Remb. that

- 0 - KL → T
- 1 - Kg_m = T · KL · T
- 2 - K5

$$F = K \Delta$$

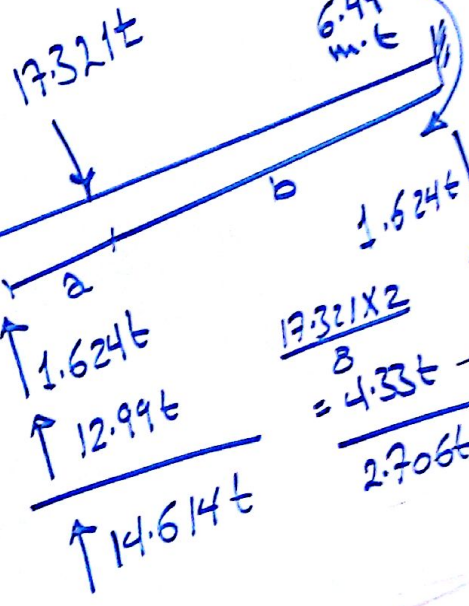
$$3 - F_{Lm}$$

$$4 - F_{gr}$$

$$5 - F_5 = F_N - F_{EM}$$

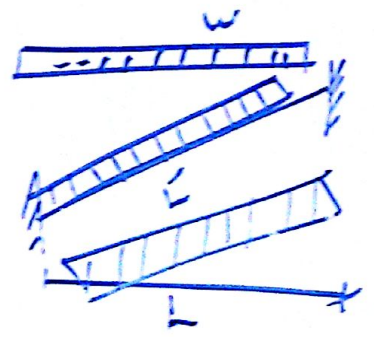
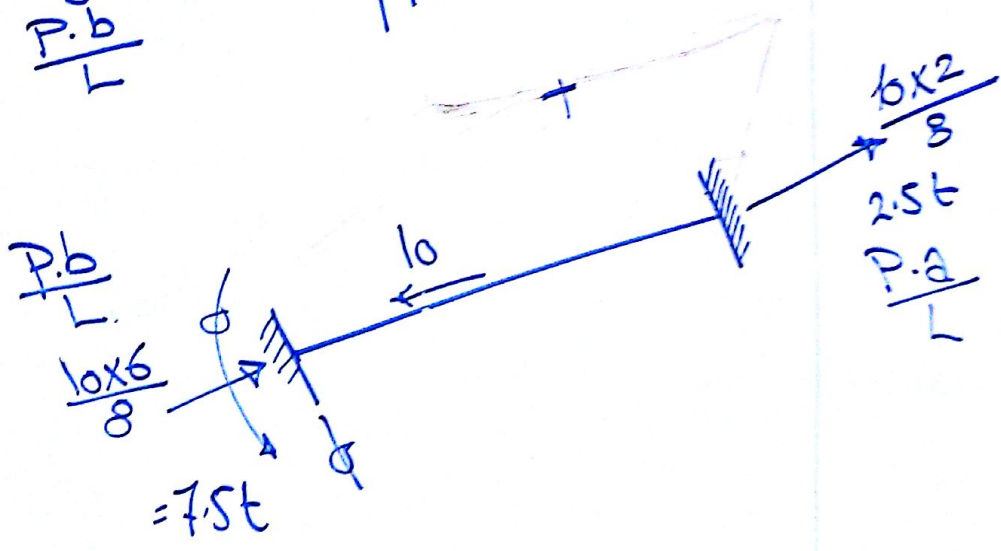
$$\frac{17.321 \times 2 \times 6^2}{8^2} = 19.485 \text{ m.t}$$

$$\int \frac{P \cdot b}{L} = \frac{17.321 \times 6}{8}$$



$$\frac{17.321 \times 2}{8} = 4.33 \text{ t}$$

$$\frac{2.706 \text{ t}}{2}$$

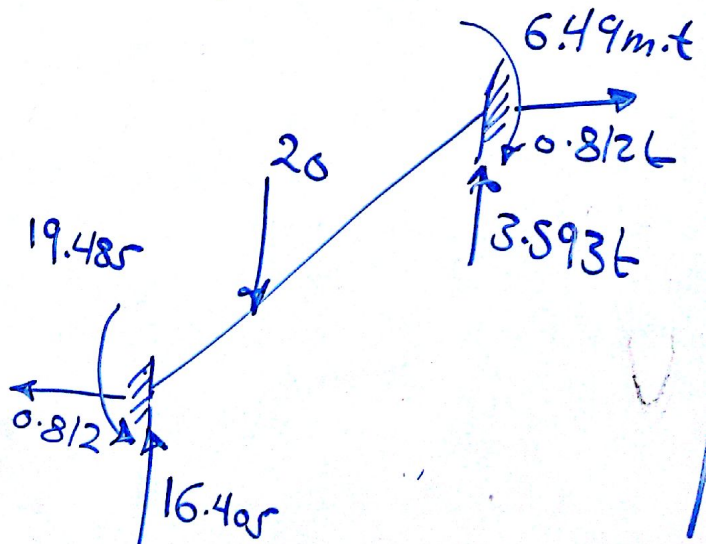


$$F_L = \begin{bmatrix} 7.5 \\ 14.614 \\ 19.485 \\ 2.5 \\ 2.706 \\ -6.49 \end{bmatrix} \begin{matrix} 1 \\ 2 \\ 3 \\ 4 \\ 5 \\ 6 \end{matrix}$$

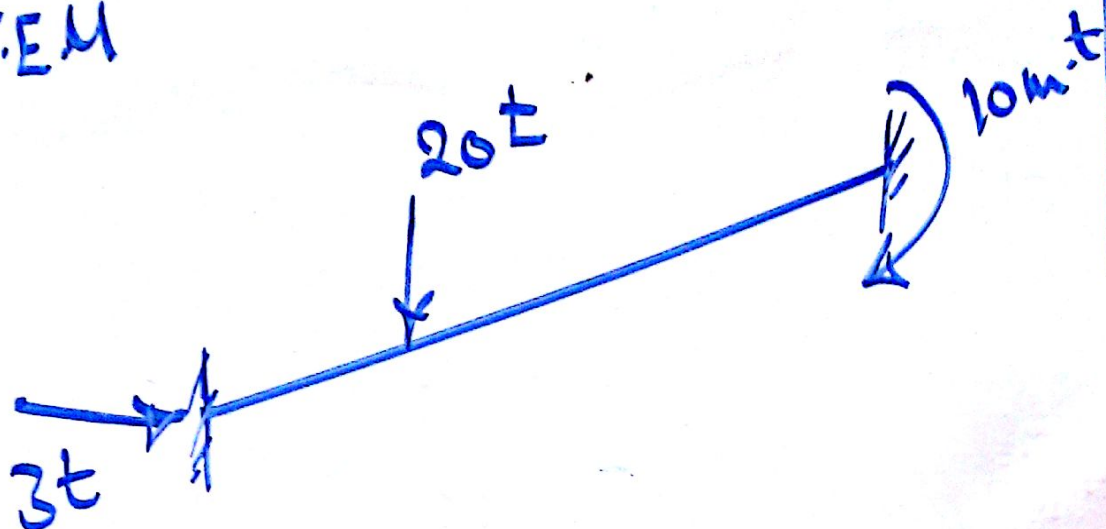
$$\therefore F_g = T \cdot F_L$$

$$F_g = \begin{bmatrix} 0.866 & -0.5 & 0 & 0 & 0 & 0 \\ 0.5 & 0.866 & 0 & 0 & 0 & 0 \\ -0 & -0 & 1 & 1 & 0 & 0 \\ 0 & 0 & 0 & 0.866 & -0.5 & 0 \\ 0 & 0 & 0 & 0.5 & 0.866 & 0 \\ 0 & 0 & 0 & 0 & 0 & 1 \end{bmatrix} \begin{bmatrix} 7.5 \\ 14.614 \\ 19.485 \\ 2.5 \\ 2.706 \\ -6.49 \end{bmatrix}$$

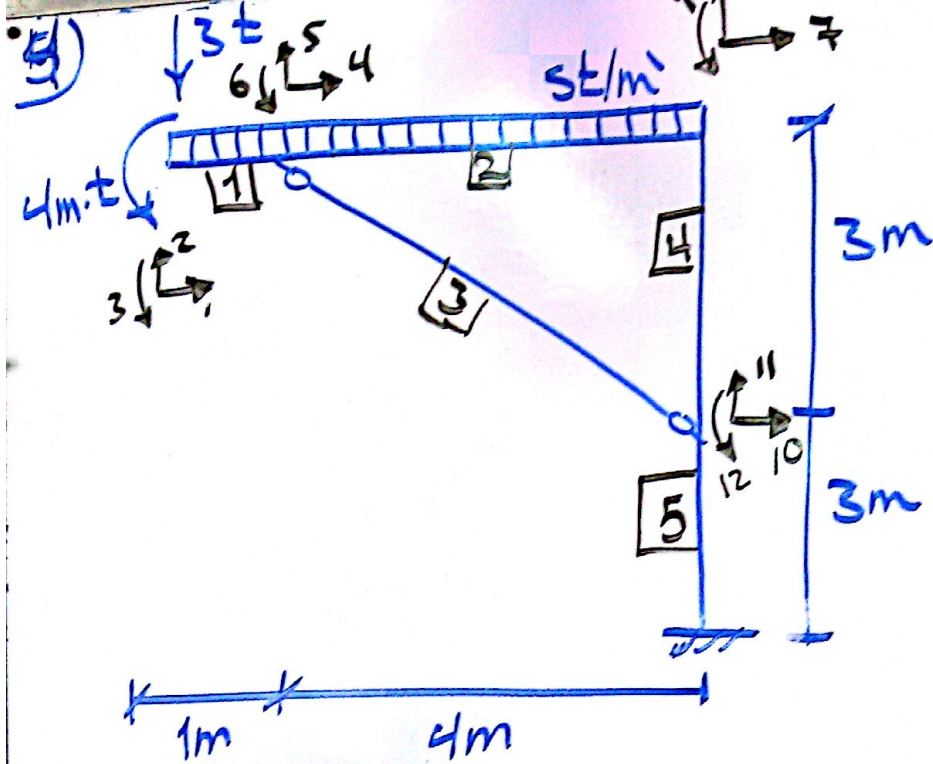
$$F_{g_m} = \begin{bmatrix} -0.812 \\ 16.405 \\ 19.485 \\ 0.812 \\ 3.593 \\ -6.49 \end{bmatrix} \begin{matrix} 1 \\ 2 \\ 3 \\ 4 \\ 5 \\ 6 \end{matrix}$$



$$F_S = F_N - F_{FEM}$$

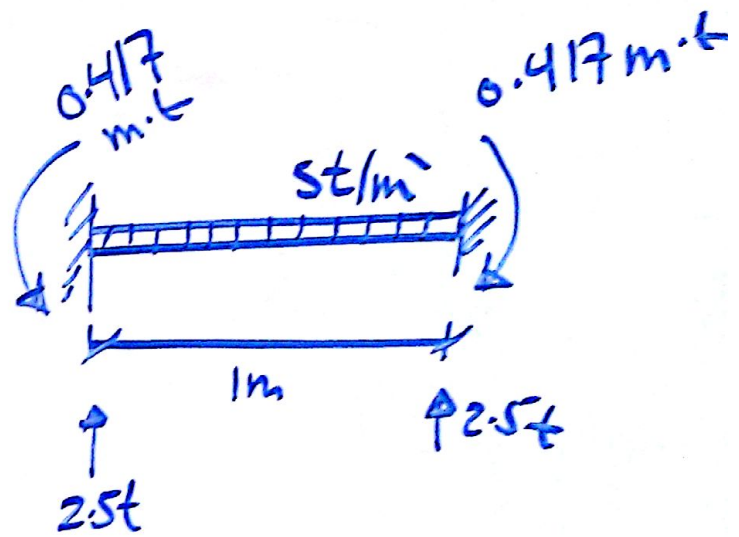


$$F_S = \begin{bmatrix} 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 1 \end{bmatrix} - \begin{bmatrix} -0.812 \\ 16.405 \\ 19.485 \\ 0.812 \\ 3.593 \\ -6.49 \end{bmatrix} = \begin{bmatrix} 3.812 \\ -16.405 \\ -19.485 \\ -0.812 \\ -3.593 \\ -3.51 \end{bmatrix}$$



For Member 1

$$F_{F.E.M} = \begin{bmatrix} 0 \\ 2.5 \\ 0.417 \\ 0 \\ 2.5 \\ -0.417 \end{bmatrix} \begin{matrix} 1 \\ 2 \\ 3 \\ 4 \\ 5 \\ 6 \end{matrix}$$



For Member 2

$$F_{F.E.M} = \begin{bmatrix} 0 \\ 10 \\ 6.667 \\ 0 \\ 10 \\ -6.667 \end{bmatrix} \begin{matrix} 4 \\ 5 \\ 6 \\ 7 \\ 8 \\ 9 \end{matrix}$$

