

Perhitungan Kekakuan Normal (EA) dan Kekakuan Lentur (EI)

1. Kekakuan normal/*normal stiffness* (EA)

$$\begin{aligned}\text{Dik :} \quad E &= 36 \times 10^6 \text{ (kN/m}^2\text{)} \\ A &= 0,0513 \text{ m}^2 \\ I &= 0,0253 \text{ m}^4\end{aligned}$$

$$\begin{aligned}EA &= E \times A \\ &= 36.000.000 \times 0,0513 \\ &= 1.846.800 \text{ kN/m}\end{aligned}$$

2. Kekakuan lentur/*bending stiffness* (EI)

$$\begin{aligned}\text{Dik :} \quad E &= 36 \times 10^6 \text{ (kN/m}^2\text{)} \\ A &= 0,0513 \text{ m}^2 \\ I &= 0,0253 \text{ m}^4\end{aligned}$$

$$\begin{aligned}EI &= E \times I \\ &= 36.000.000 \times 0,0253 \\ &= 910.800 \text{ kN/m}^2/\text{m}\end{aligned}$$