

$$\left\{ \begin{aligned} \frac{ql^3}{12EI} - \frac{2}{3} \frac{x_1 l}{EI} - \frac{x_2 l}{6EI} - \frac{ql^3}{48EI} &= 0 \end{aligned} \right.$$

$$\left\{ \begin{aligned} \frac{ql^3}{12EI} - \frac{2}{3} \frac{x_2 l}{EI} - \frac{x_1 l}{6EI} &= 0 \end{aligned} \right.$$

Divide tutto per EI

$$\bullet \frac{ql^3}{12} - \frac{2x_1 l}{3} - \frac{x_2 l}{6} - \frac{ql^3}{48} = 0$$

$$\frac{ql^3}{4} - 2x_1 l - \frac{x_2 l}{2} - \frac{ql^3}{6} = 0 \Rightarrow \boxed{x_1 = \frac{3}{32} ql^2 - \frac{x_2}{4}}$$

$$\bullet \frac{ql^3}{12} - \frac{2}{3} x_2 l - \left[\left(\frac{3}{32} ql^2 - \frac{x_2}{4} \right) l / 6 \right] = 0$$

$$\frac{43 ql^3}{192} - \frac{16+1}{24} x_2 l = 0 \Rightarrow \boxed{x_2 = \frac{43}{120} ql^2}$$

$$x_1 = \frac{3}{32} ql^2 - \frac{43}{120} \cdot \frac{1}{4} = \frac{(45-13)}{480} ql^2 \Rightarrow x_1 = \frac{ql^2}{15}$$

