$$\Sigma M_B = 0$$

$$ql^2 - \frac{ql^2}{12} + \frac{6EI}{l^2}w - \frac{4EI}{l}\varphi_B - \frac{3EI}{l}\varphi_B - \frac{EI}{l}\varphi_B =$$

$$= \frac{11}{12}ql^2 - \frac{8EI}{l}\varphi_B + \frac{6EI}{l^2}w = 0$$

$$\varphi_B = \frac{l}{8EI}\left(\frac{11}{12}ql^2 + \frac{6EI}{l^2}w\right) =$$

$$= \frac{11}{96}\frac{ql^3}{EI} + \frac{3}{4}\frac{w}{l}$$

$$T_{BC}^{\circ} = -\frac{ql}{2} \qquad T_{BC} = -\frac{6EI}{l^2}\varphi_B + \frac{12EI}{l^3}w$$

$$T_{BA}^{\circ} = 0 \qquad T_{BA} = 0$$

$\frac{12EI}{l^3}w \leftarrow$

$\rightarrow \frac{6EI}{l^2}\varphi_B$

$\frac{ql}{2} \rightarrow$

$$\Sigma X = 0 \qquad \frac{ql}{2} + \frac{6EI}{l^2}\varphi_B - \frac{12EI}{l^3}w = 0$$

$$\frac{ql}{2} + \frac{6EI}{l^2}\left(\frac{11}{96}\frac{ql^3}{EI} + \frac{3}{4}\frac{w}{l}\right) - \frac{12EI}{l^3}w =$$

$$= \frac{ql}{2} + \frac{66}{96}ql + \frac{18}{4}\frac{wEI}{l^3} - 12\frac{EI}{l^3}w =$$

$$= \frac{114}{96}ql - \frac{30}{4}\frac{wEI}{l^3} = 0$$

$$\underline{w = \frac{4}{30}\cdot\frac{l^3}{EI}\cdot\frac{114}{96}ql = 0{,}1583\,ql^4/EI}$$