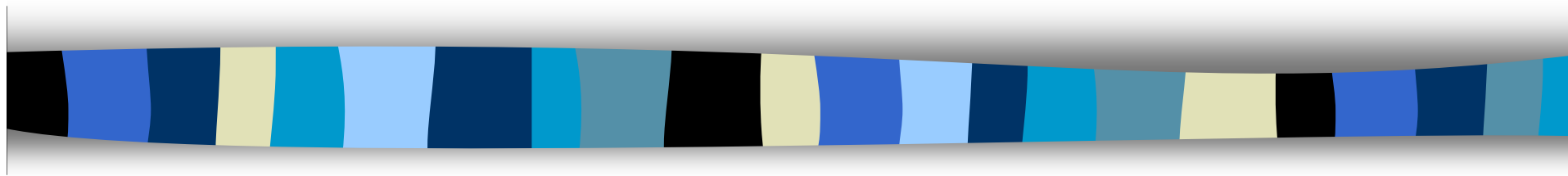
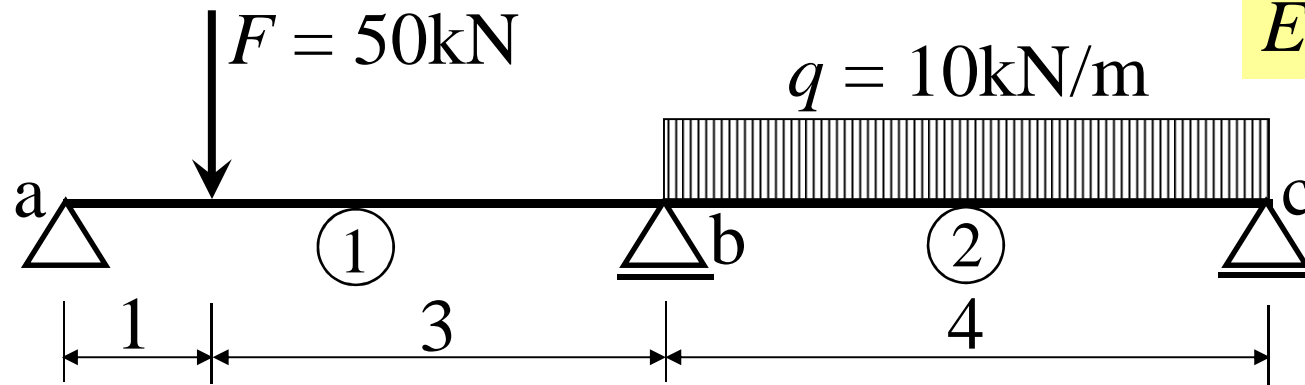


Řešení spojitého nosníku metodou třímomentových rovnic



Příklad 1



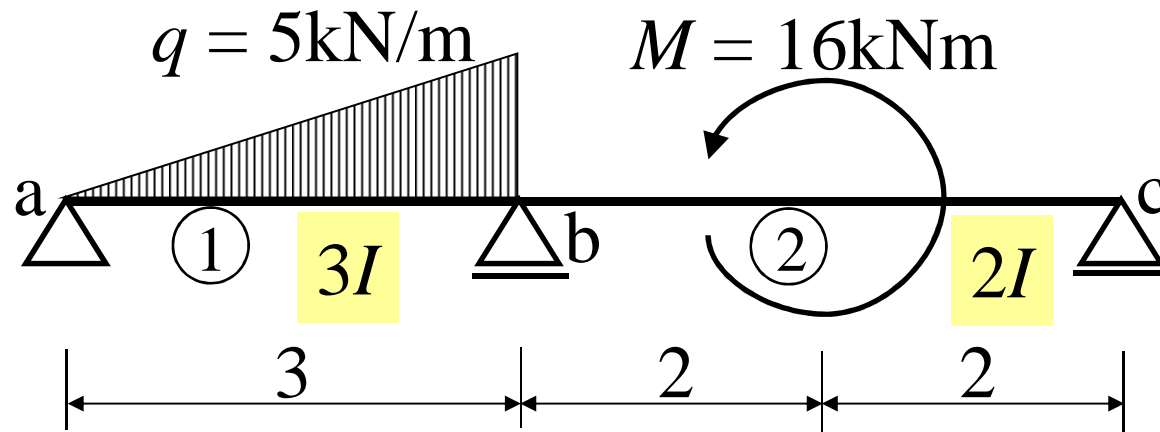
$EI = \text{konst.}$

$$M_a \cdot \frac{l_1}{EI_1} + 2 \cdot M_b \cdot \left(\frac{l_1}{EI_1} + \frac{l_2}{EI_2} \right) + M_c \cdot \frac{l_2}{EI_2} + Z_{ba} \cdot \frac{l_1}{EI_1} + Z_{bc} \cdot \frac{l_2}{EI_2} = 0$$

$$M_a \cdot l_1 + 2 \cdot M_b \cdot (l_1 + l_2) + M_c \cdot l_2 + Z_{ba} \cdot l_1 + Z_{bc} \cdot l_2 = 0$$

Zatěž. případ	Zatížení	Z_{ab}	Z_{ba}
1		$\frac{Fab}{l^2}(l+b)$	$\frac{Fab}{l^2}(l+a)$
11		$\frac{1}{4}ql^2$	$\frac{1}{4}ql^2$

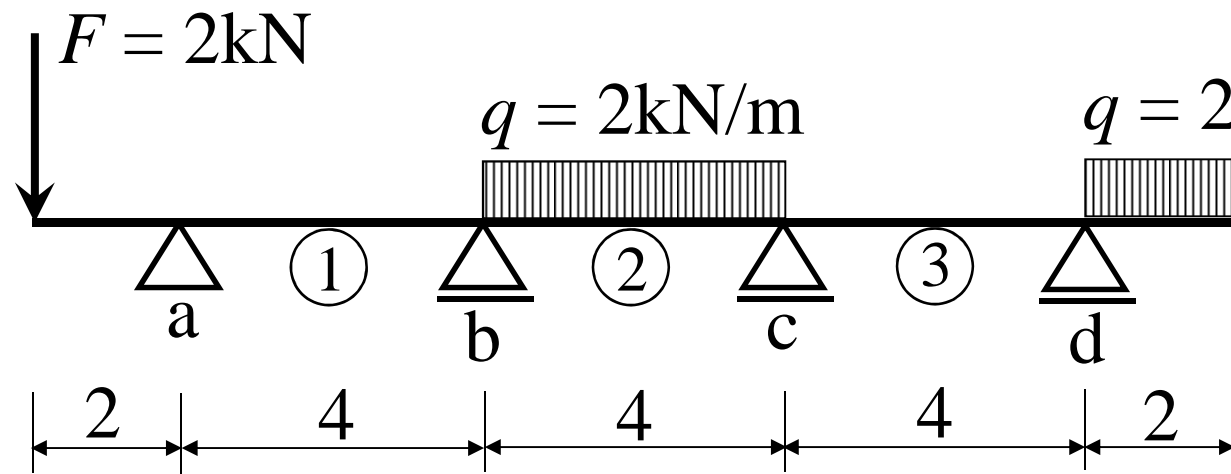
Příklad 2



$$M_a \cdot \frac{l_1}{I_1} + 2 \cdot M_b \cdot \left(\frac{l_1}{I_1} + \frac{l_2}{I_2} \right) + M_c \cdot \frac{l_2}{I_2} + Z_{ba} \cdot \frac{l_1}{I_1} + Z_{bc} \cdot \frac{l_2}{I_2} = 0$$

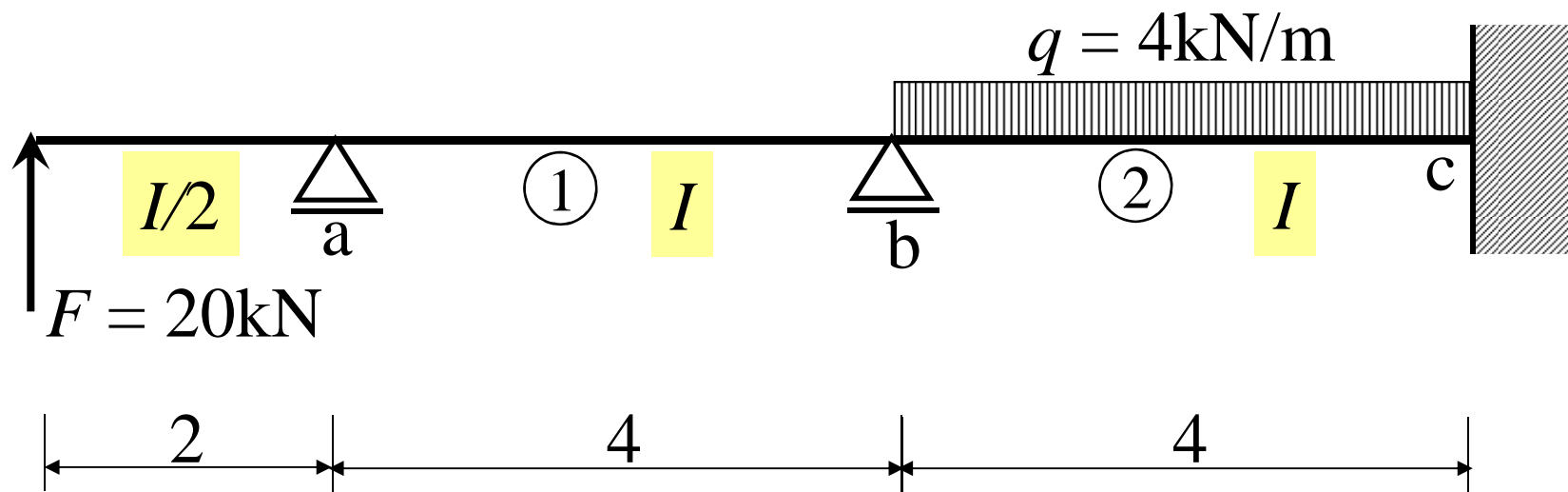
5		$\frac{M}{l^2} (l^2 - 3b^2)$	$\frac{M}{l^2} (3a^2 - l^2)$
12		$\frac{7}{60} ql^2$	$\frac{8}{60} ql^2$

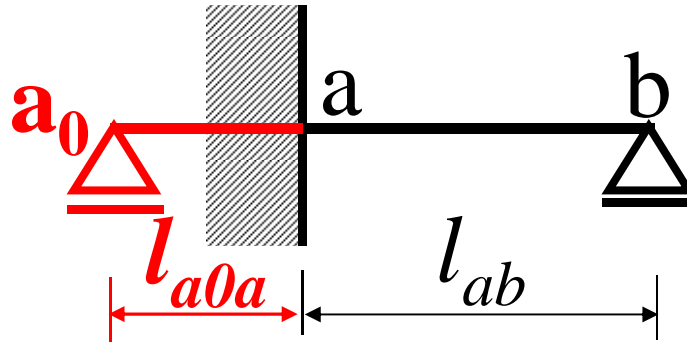
Příklad 3



$EI = \text{konst.}$

Příklad 4

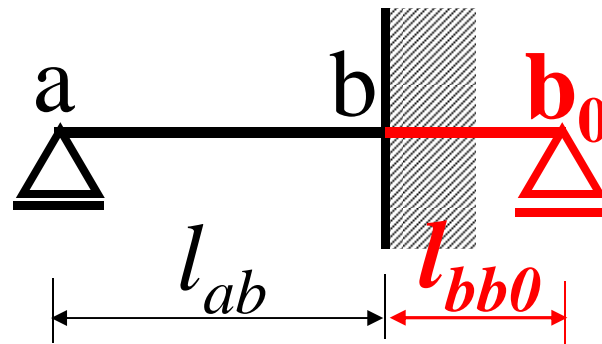




$$M_{a_0} \cdot l_{a_0a} + 2 \cdot M_a \cdot (l_{a_0a} + l_{ab}) + M_b \cdot l_{ab} + Z_{aa_0} \cdot l_{a_0a} + Z_{ab} \cdot l_{ab} = 0$$

$$0 + 2 \cdot M_a \cdot (0 + l_{ab}) + M_b \cdot l_{ab} + 0 + Z_{ab} \cdot l_{ab} = 0$$

$$2 \cdot M_a \cdot l_{ab} + M_b \cdot l_{ab} + Z_{ab} \cdot l_{ab} = 0$$



$$M_a \cdot l_{ab} + 2 \cdot M_b \cdot (l_{ab} + l_{bb_0}) + M_{b_0} \cdot l_{bb_0} + Z_{ba} \cdot l_{ab} + Z_{bb_0} \cdot l_{bb_0} = 0$$

$$M_a \cdot l_{ab} + 2 \cdot M_b \cdot (l_{ab} + 0) + 0 + Z_{ba} \cdot l_{ab} + 0 = 0$$

$$M_a \cdot l_{ab} + 2 \cdot M_b \cdot l_{ab} + Z_{ba} \cdot l_{ab} = 0$$