

$$Q = x \cdot \sin 30^\circ = 12 \cdot \frac{1}{2} = 6 \rightarrow q = \frac{6}{4} = 1.5 \text{ kN/m}$$

$$N = x \cdot \cos 30^\circ = 12 \cdot \frac{\sqrt{3}}{2} = 6\sqrt{3} \rightarrow n = 1.5 \cdot \sqrt{3} = 2.598 \text{ kN/m}$$

$$\sum F_{ix} = 0: X - R_{ax} - 5 = 0$$

$$6 \cdot 2 - R_{ax} - 5 = 0$$

$$R_{ax} = 7 \text{ kN}$$

$$\sum M_{ia} = 0: -X \cdot 1 + 5 \cdot 3 - 3 + R_{bz} \cdot L = 0$$

$$R_{bz} = \frac{6 \cdot 2 - 15 + 3}{L} = \frac{0}{L} = 0$$

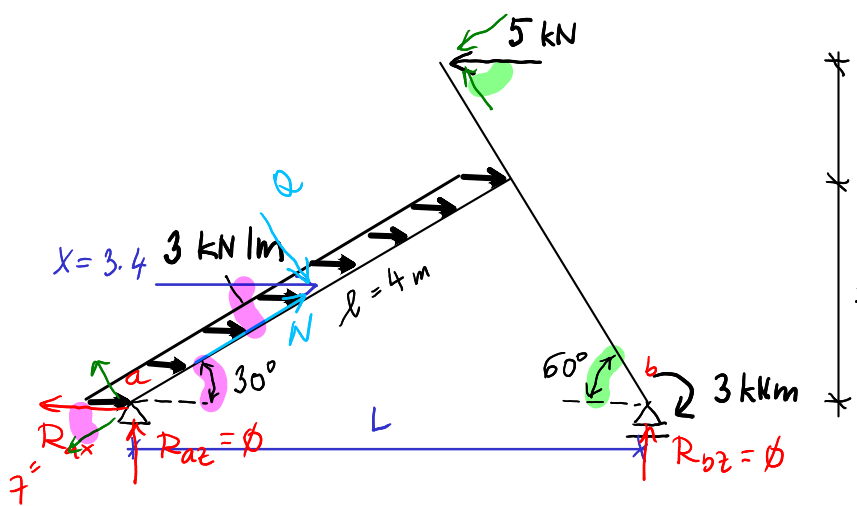
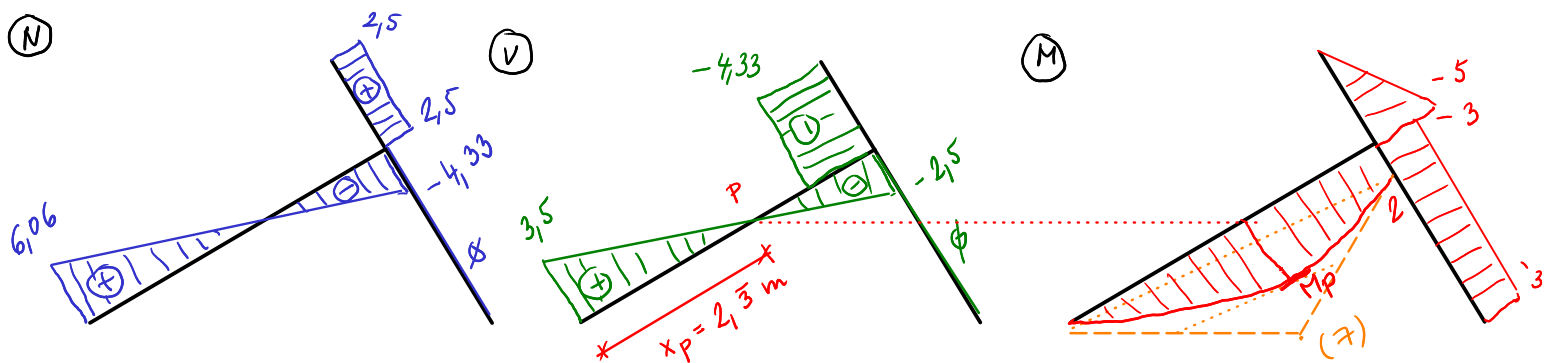
$$\sum M_{ib} = 0: -3 + 5 \cdot 3 - X \cdot 1 - R_{az} \cdot L = 0$$

$$R_{az} = \frac{-3 + 15 - 6 \cdot 2}{L} = \frac{0}{L} = 0$$

→ délku L nebylo potřeba vyčíslovat

$$KO: \sum F_{iz} = 0: R_{az} + R_{bz} = 0 \checkmark$$

$$M_p = 4.083 \text{ kNm}$$



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$$3 \cdot 4 - R_{ax} - 5 = 0$$

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$$\sum M_{ia} = 0: -X \cdot 1 + 5 \cdot 3 - 3 + R_{bz} \cdot L = 0$$

$$R_{bz} = \frac{12 \cdot 1 - 15 + 3}{L} = \frac{0}{L} = 0$$

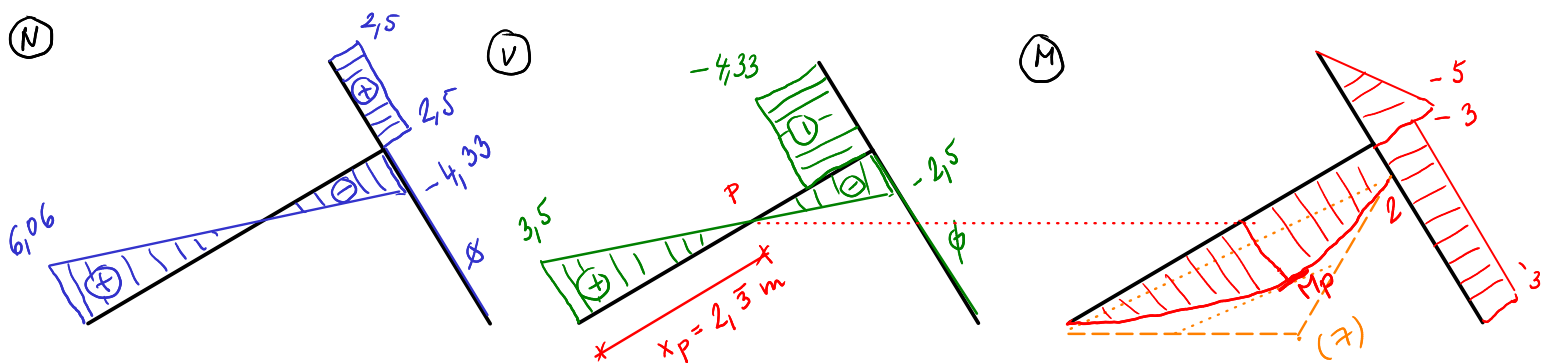
$$\sum M_{ib} = 0: -3 + 5 \cdot 3 - X \cdot 1 - R_{az} \cdot L = 0$$

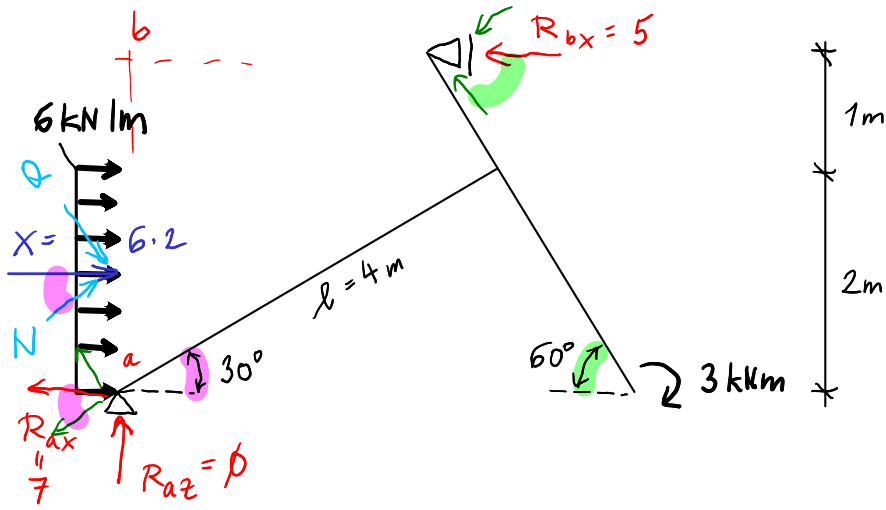
$$R_{az} = \frac{-3 + 15 - 12 \cdot 1}{L} = \frac{0}{L} = 0$$

→ délku L nebylo potřeba vyčíslovat

$$KO: \sum F_{iz} = 0: R_{az} + R_{bz} = 0 \checkmark$$

$$M_p = 4.083 \text{ kNm}$$





$$\sum F_{iz} = 0 : \underline{R_{az} = 0}$$

$$\sum M_{ia} = 0 : -3 + R_{bx} \cdot 3 - X \cdot 1 = 0$$

$$R_{bx} = \frac{3 + 12 \cdot 1}{3} = 5 \text{ kN}$$

$$\sum M_{ib} = 0 : X \cdot 2 - R_{ax} \cdot 3 - 3 = 0$$

$$R_{ax} = \frac{12 \cdot 2 - 3}{3} = 7 \text{ kN}$$

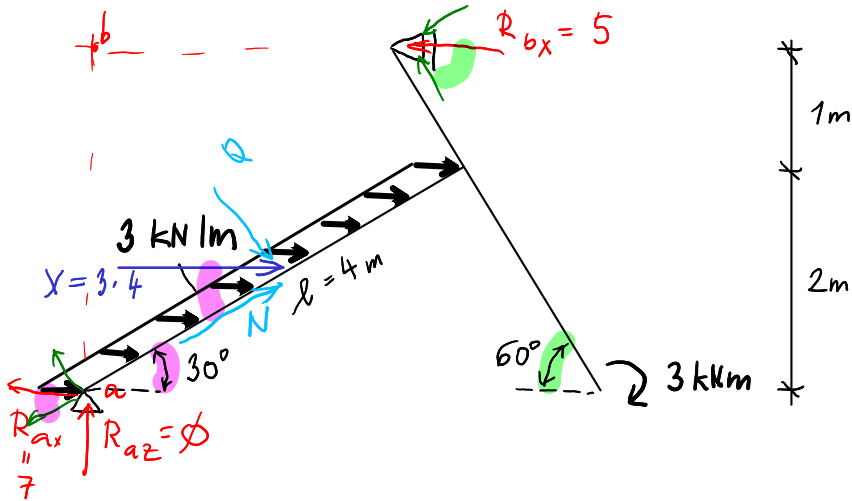
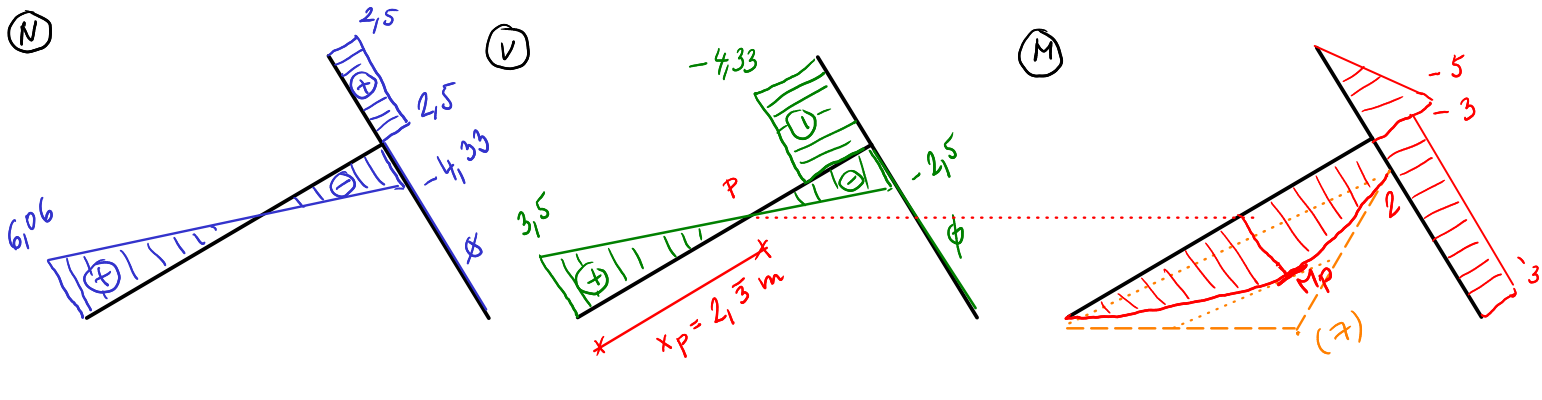
$$KO : \sum F_{ix} = 0 : -R_{ax} + X - R_{bx} = 0$$

$$-7 + 12 - 5 = 0 \checkmark$$

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$$M_p = 4.08\bar{3} \text{ kNm}$$



$$\sum F_{iz} = 0 : \underline{R_{az} = 0}$$

$$\sum M_{ia} = 0 : -3 + R_{bx} \cdot 3 - X \cdot 1 = 0$$

$$R_{bx} = \frac{3 + 12 \cdot 1}{3} = 5 \text{ kN}$$

$$\sum M_{ib} = 0 : X \cdot 2 - R_{ax} \cdot 3 - 3 = 0$$

$$R_{ax} = \frac{12 \cdot 2 - 3}{3} = 7 \text{ kN}$$

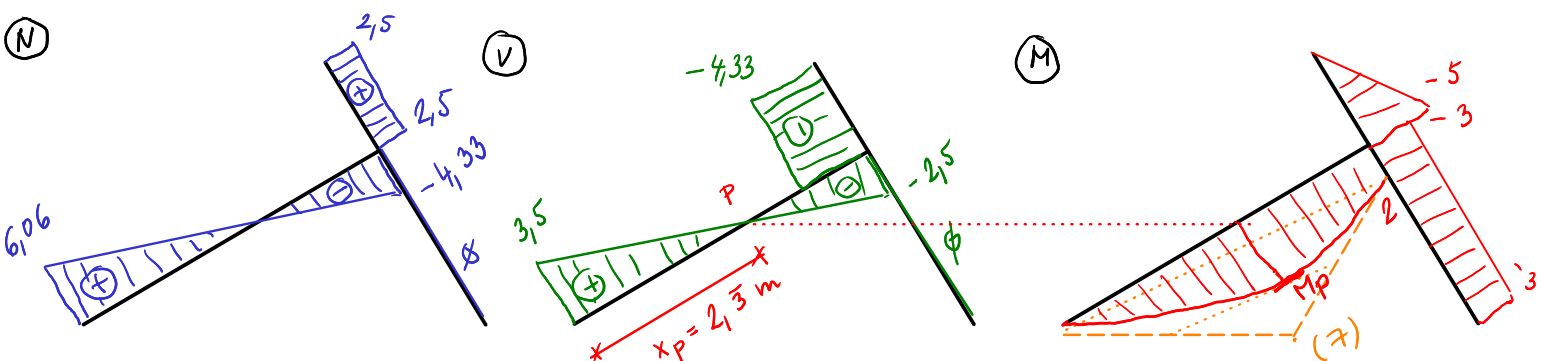
$$KO : \sum F_{ix} = 0 : -R_{ax} + X - R_{bx} = 0$$

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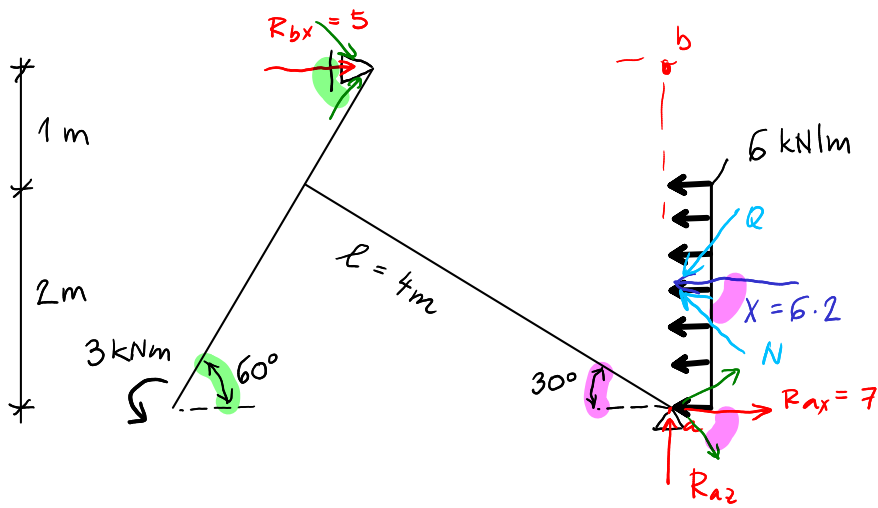
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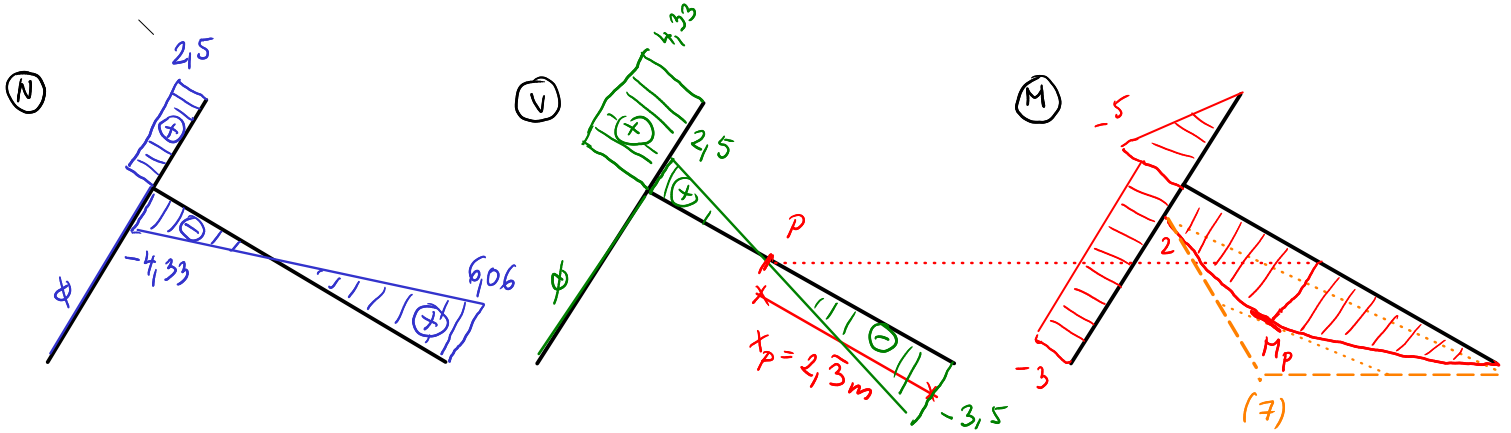
VÝPOČTY VÍZ VÝŠE



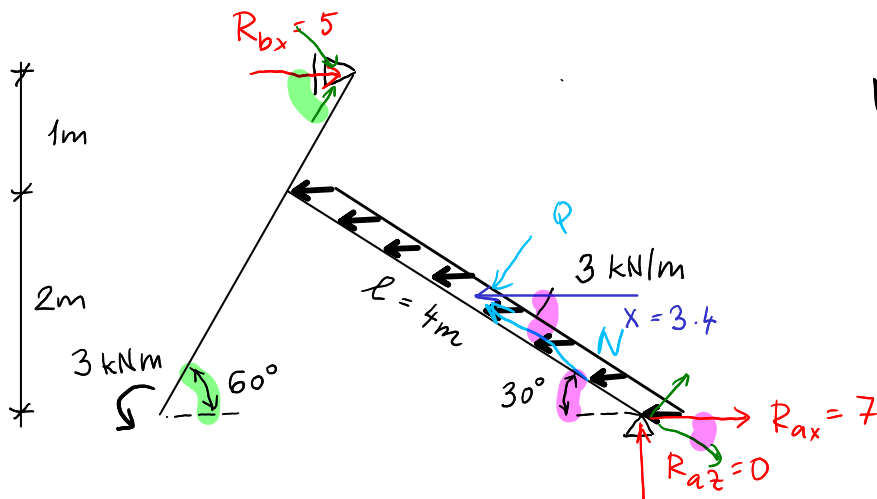
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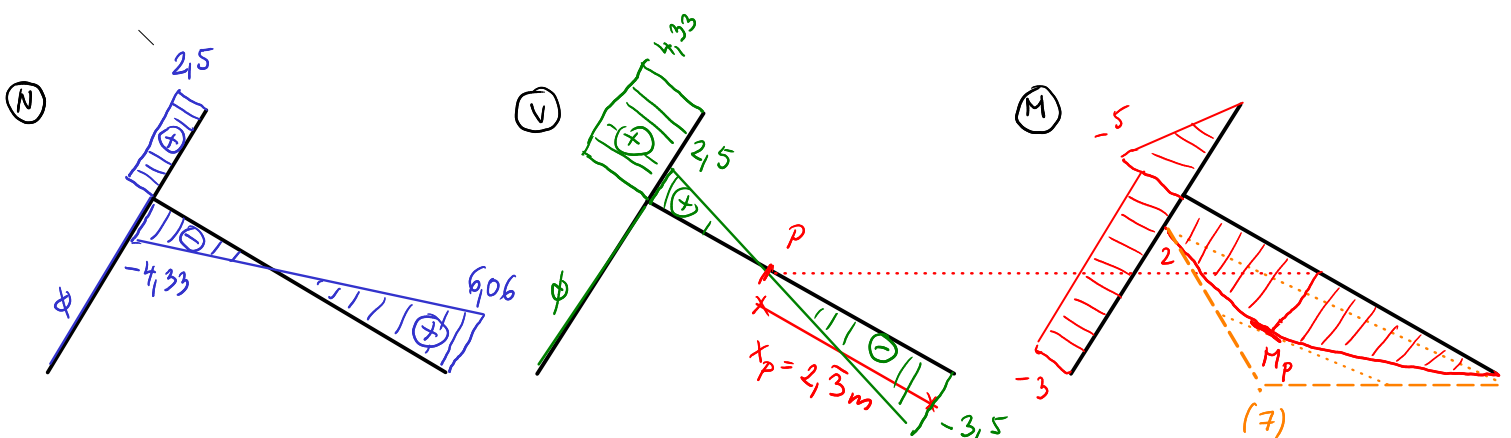
VÝPOČTY VÍZ VÝŠE



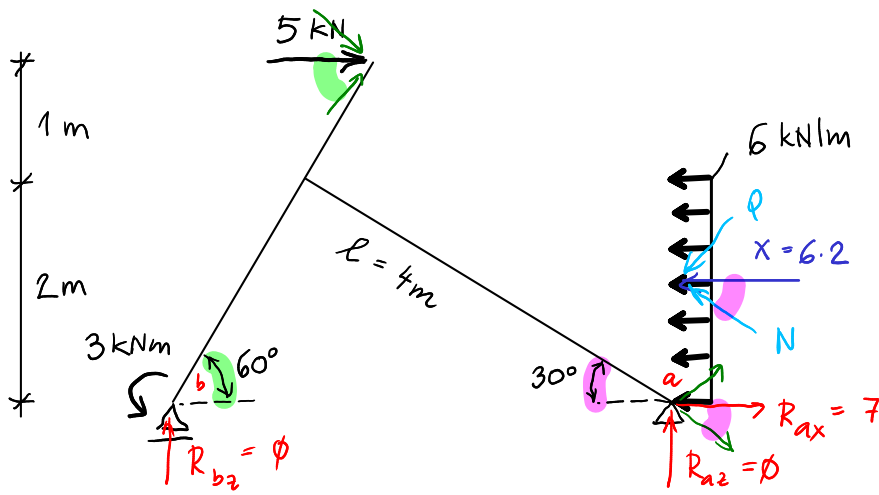
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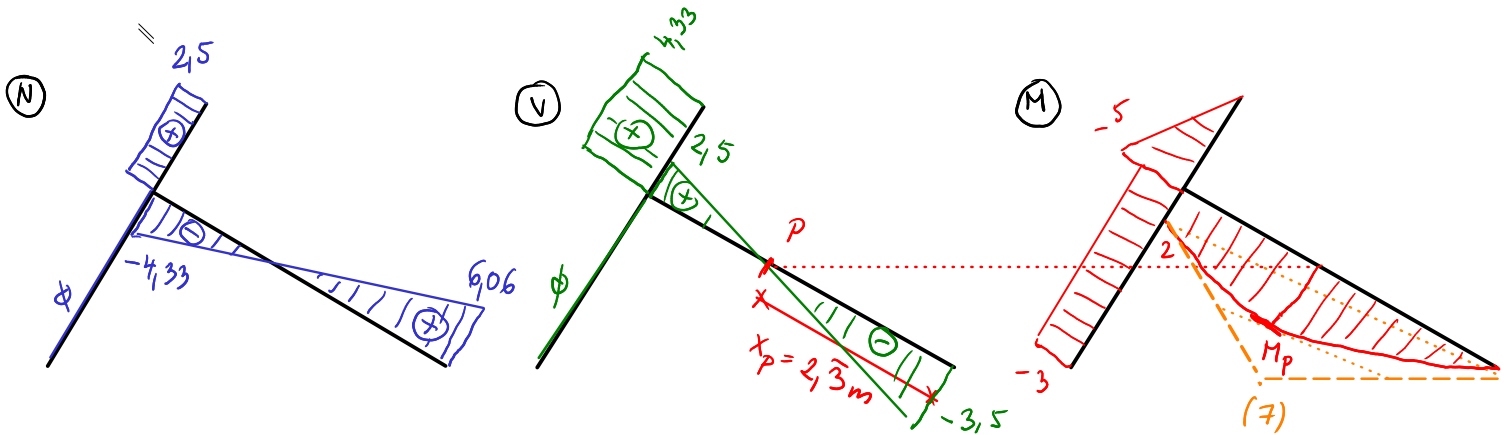
VÝPOČTY VIZ VÝŠE



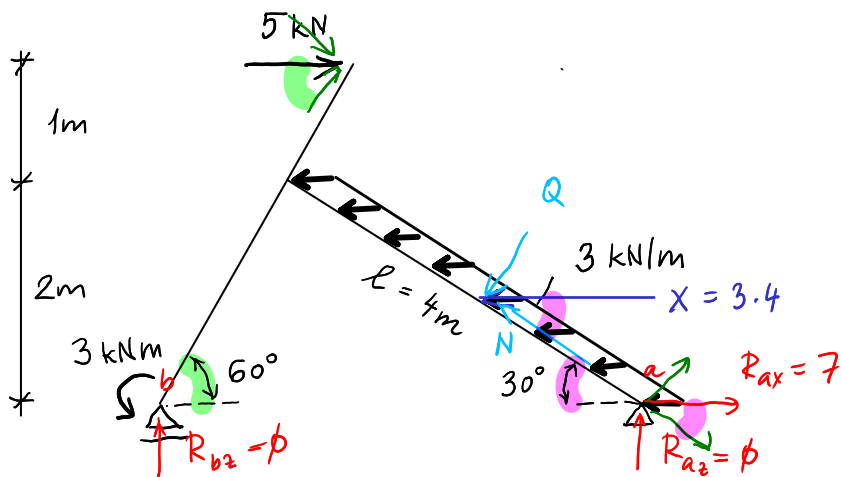
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VÝPOČTY VIZ VÝŠE



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