

Remarks: See §9.3.1, page 337 till 351.

Answers:

1. $N^{(1)} = -22,5 \text{ kN}$
 $N^{(2)} = -12,5 \text{ kN}$
 $N^{(3)} = +30 \text{ kN}$

2. $N^{(1)} = -30 \text{ kN}$
 $N^{(2)} = +12,5 \text{ kN}$
 $N^{(3)} = -22,5 \text{ kN}$

Remarks:

The force in the diagonal bar changes sign if the rising diagonal is changed in a descending diagonal.

Also see §9.1.3, page 326 figure 9.12.