Remarks: See §5.7, page 186 till 189

Answers: All forces in kN and moments in kNm

The normal force in a bar positive as a tensile force and negative as a compressive force

1a. $A_h = 9\ (\leftarrow)\ ;\ A_v = 9\ (\uparrow)\ ;\ B_h = 9\ (\rightarrow)\ ;\ B_v = 3\ (\downarrow)$

1b. $N^{(a)} = +9\sqrt{2} = +12,73$

$N^{(b)} = +6$

$N^{(c)} = +3\sqrt{10} = +9,49$

2a. $A_h = 6\ (\leftarrow)\ ;\ A_v = 6\ (\uparrow)\ ;\ B_h = 6\ (\rightarrow)\ ;\ B_v = 0$

2b. $N^{(a)} = +6\sqrt{2} = +8,49$

$N^{(b)} = +4$

$N^{(c)} = +2\sqrt{10} = +6,32$

3a. $A_h = 3\ (\leftarrow)\ ;\ A_v = 3\ (\uparrow)\ ;\ B_h = 3\ (\rightarrow)\ ;\ B_v = 3\ (\uparrow)$

3b. $N^{(a)} = +3\sqrt{2} = +4,24$

$N^{(b)} = +2$

$N^{(c)} = +\sqrt{10} = +3,16$

4a. $A_h = 3\ (\leftarrow)\ ;\ A_v = 3\ (\uparrow)\ ;\ B_h = 3\ (\leftarrow)\ ;\ B_v = 3\ (\downarrow)$

4b. $N^{(a)} = +3\sqrt{2} = +4,24$

$N^{(b)} = +2$

$N^{(c)} = +\sqrt{10} = +3,16$

Hints:

From the moment equilibrium about A you can find the horizontal support reaction in A. Because (a) is a two-force member you also know the vertical support reaction and the normal force $N^{(a)}$. $N^{(b)}$ and $N^{(c)}$ follow from the force equilibrium from the joint where bars (a), (b) and (c) join.