

Remarks: See §9.3.2, page 351 till 363 and §9.3.3 page 363 till 369

Answers:

a. $N^{(1)} = -2F\sqrt{2}$
 $N^{(2)} = +2F$
 $N^{(3)} = 0$
 $N^{(4)} = 0$
 $N^{(5)} = 0$
 $N^{(6)} = -2F$
 $N^{(7)} = +F$
 $N^{(8)} = 0$
 $N^{(9)} = -F$
 $N^{(10)} = -F$
 $N^{(11)} = +F\sqrt{2}$
 $N^{(12)} = -2F$
 $N^{(13)} = +F\sqrt{2}$

Remarks:

Method of joints:

$H \rightarrow K \rightarrow G \rightarrow E \rightarrow D \rightarrow C \rightarrow B \rightarrow A$

From the joint equilibrium in B and A you should be able to find support reactions:

$$A_h = 2F(\rightarrow); A_v = F(\uparrow); B_h = 2F(\leftarrow)$$

Check possibility: the total equilibrium of the truss

Even if you calculate the support reactions first, the only starting point is joint **H**