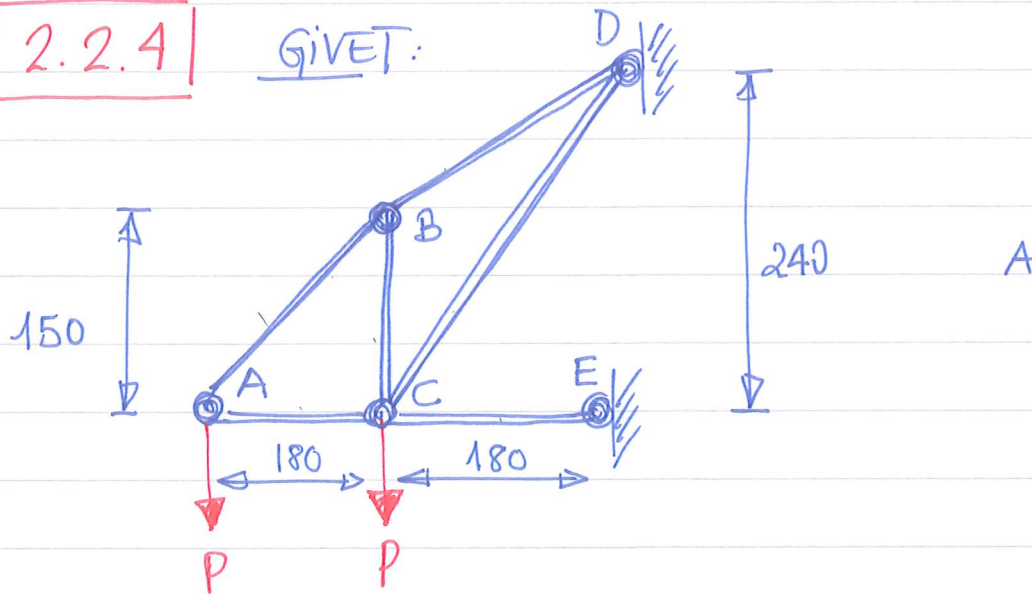


2.2.4

GIVET:

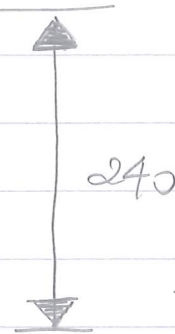
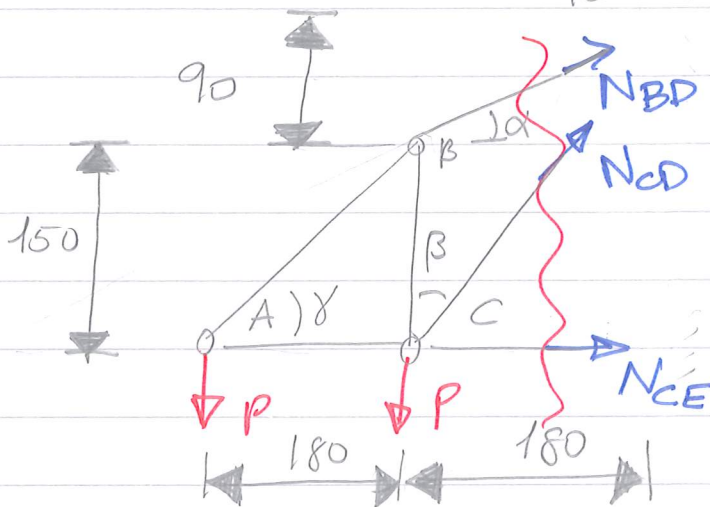


SÖKT: NORMALSPÄNNINGEN CD.

Lösning:

<u>OBEK</u>	<u>EKV</u>	
6 stänger	5 knut	
4 reak	$\times 2 \text{ ek}$	
<u>10 OBEK</u>	<u>10 EKV</u>	\Rightarrow

STATISKT
BESTÄMT



3 OBEK
+
3 EKV.

STATISKT
BESTÄMT

$$\cos \alpha = \frac{180}{\sqrt{180^2 + 90^2}} = \frac{2}{\sqrt{5}} \quad \sin \alpha = \frac{90}{\sqrt{180^2 + 90^2}} = \frac{1}{\sqrt{5}}$$

$$\cos \beta = \frac{240}{\sqrt{240^2 + 180^2}} = \frac{4}{5} \quad \sin \beta = \frac{180}{\sqrt{240^2 + 180^2}} = \frac{180}{300} = \frac{3}{5}$$

$$\sum C : -180 P + N_{BD} \cos \alpha \cdot 150 = 0$$

$$\underline{\underline{N_{BD} = \frac{180 P}{150 \cos \alpha} \quad (1)}}$$

$$\uparrow : -2P + N_{BD} \cos \alpha + N_{CD} \cos \beta = 0 \quad (2)$$

(1) i (2):

$$-2P + \frac{180 \sin \alpha}{150 \cos \alpha} P + N_{CD} \cos \beta = 0$$

$$N_{CD} = \frac{2P - \frac{3}{5} P}{\sin \beta} = \frac{7 P}{5 \cos \beta}$$

$$\boxed{N_{CD} = \frac{7}{5} \cdot P \cdot \frac{5}{4} = \frac{7 P}{4}}$$

∴ pännning:

$$\underline{\underline{\sigma_{CD} = \frac{N_{CD}}{A} = \frac{7 P}{4 A}}}$$