

ETC 1 Statique

10.04.18

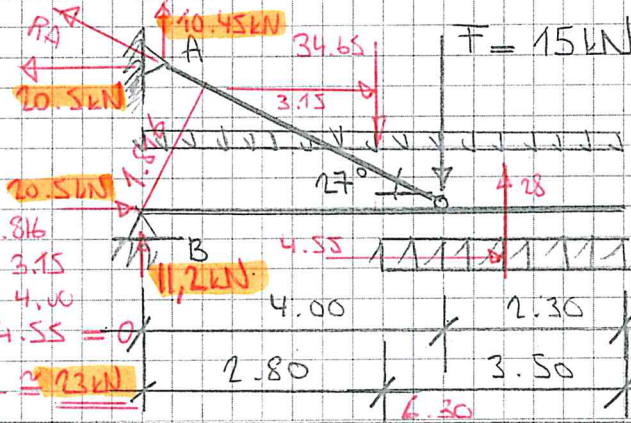
1

NOM :

PRENOM :

1 - Déterminez les réactions d'appuis de la structure suivante

18 pts



pois propre = 5.5 kN/m

vent = +8 kN/m

$$\sum M_B = 0$$

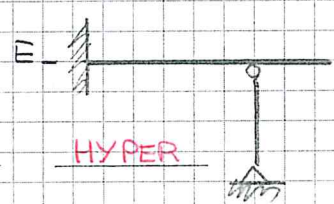
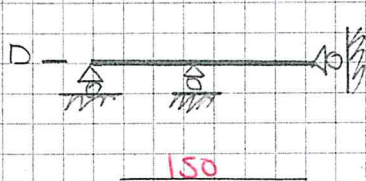
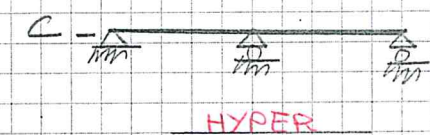
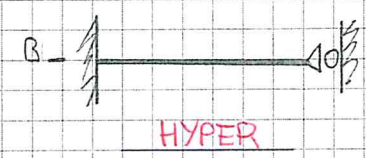
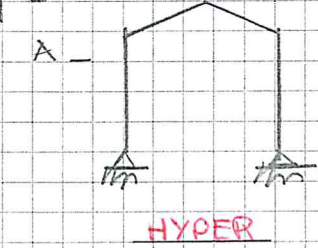
$$RA \cdot 1.816 - 34.65 \cdot 3.15 - 15 \cdot 4.00 + 28 \cdot 4.55 = 0$$

$$RA = \frac{41.75}{1.816} \approx 23 \text{ kN}$$

2 - Déterminez si les structures sont ISO = isostatique

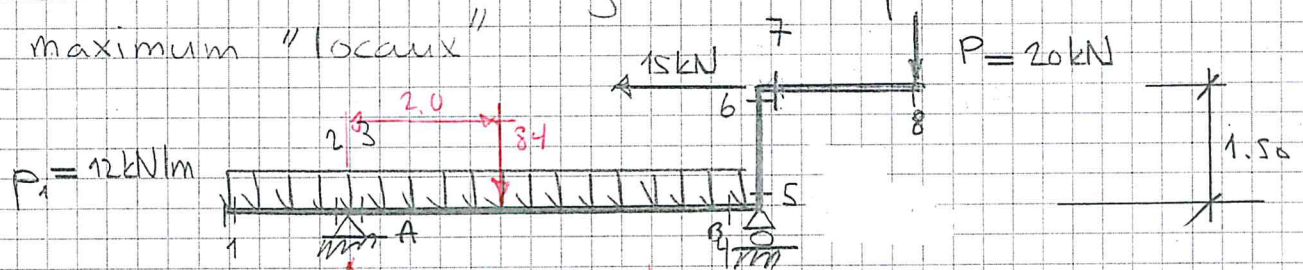
12 pts

HYPO = hypostatique
HYPER = hyperstatique



3 - Déterminez les efforts intérieurs de la structure ci-dessous avec diagrammes + position des moments

lois maximum "locaux"



$$\sum M_A = 0$$

$$-(84 \cdot 2) + RB_y \cdot 5.5 + (15 \cdot 1.5) - 20 \cdot 7.5 = 0$$

$$RB_y = \frac{295.5}{5.5} \approx 53.7 \text{ kN}$$

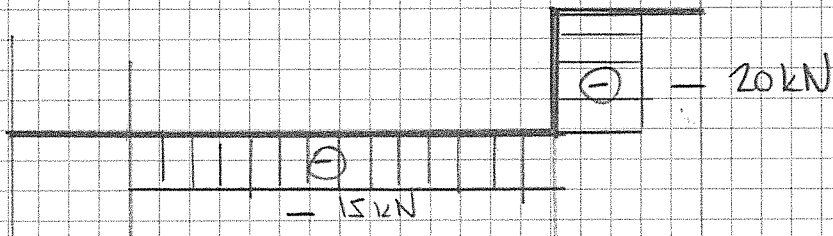
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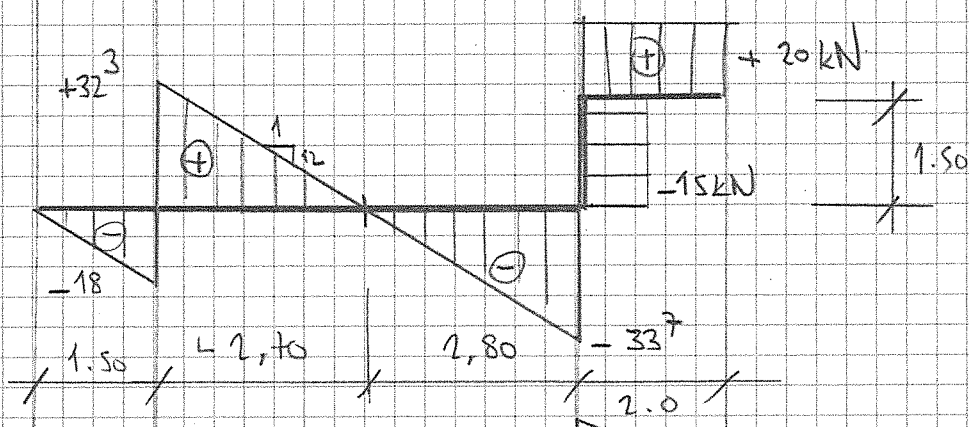
2

Résultats

N



V



M

