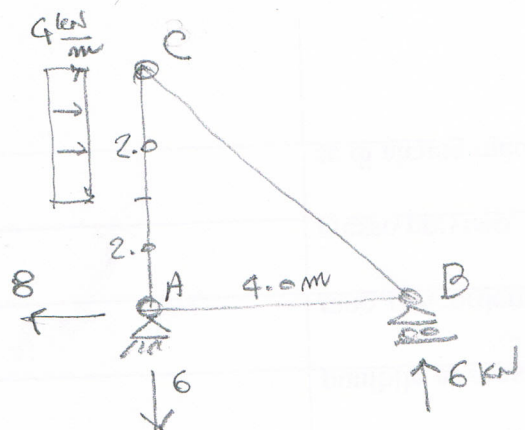
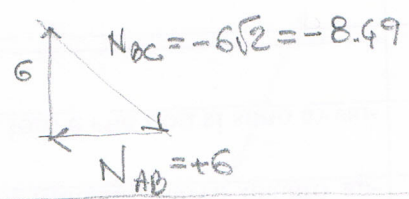
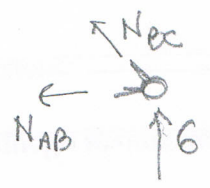


T^F
 M^F
 T^P
 M^P
 T^{P+F}
 M^{P+F}

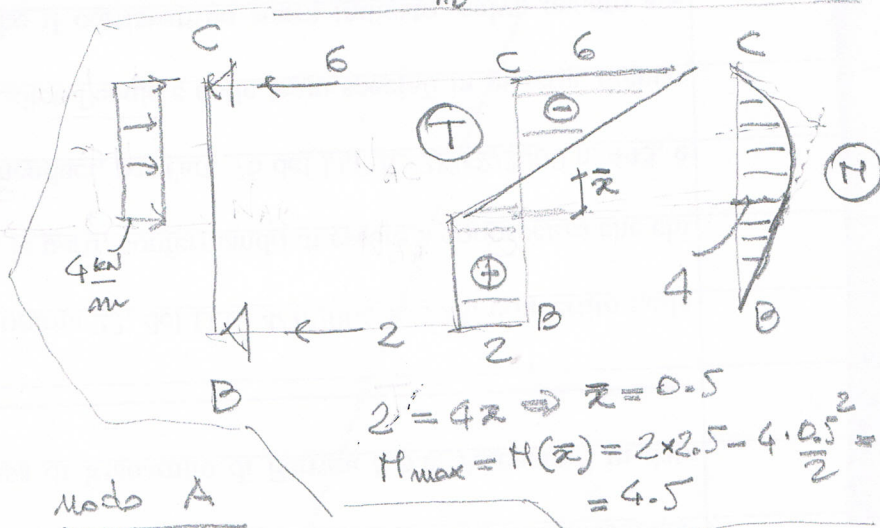
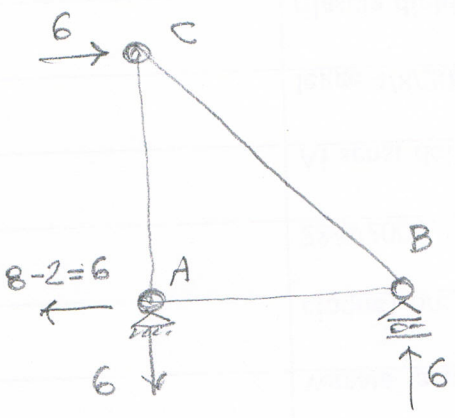


modo B



$$N_{BC} = -6\sqrt{2} = -8.49$$

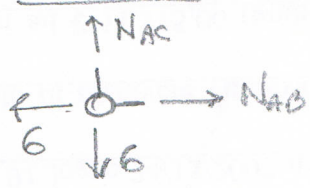
$$N_{AB} = +6$$



$$2' = 4x \Rightarrow x = 0.5$$

$$M_{max} = M(x) = 2 \times 2.5 - 4 \times \frac{0.5^2}{2} = 4.5$$

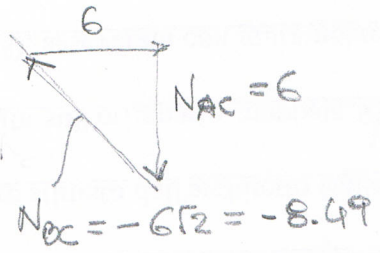
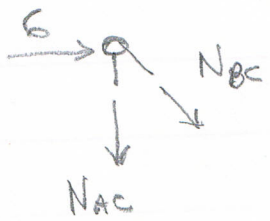
modo A



$$N_{AC} = 6$$

$$N_{AB} = 6$$

modo C



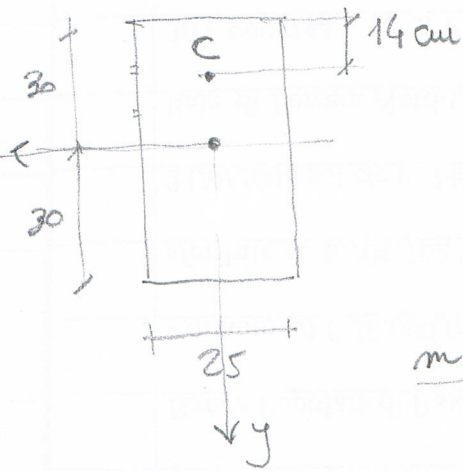
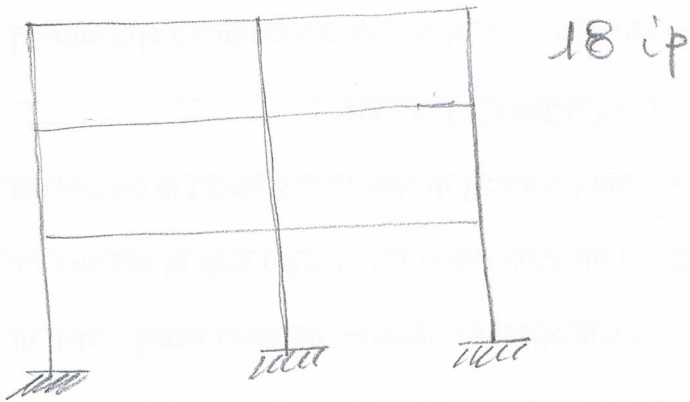
$$N_{AC} = 6$$

$$N_{BC} = -6\sqrt{2} = -8.49$$

| | AB | BC | AC |
|---|----|-------|----|
| N | 6 | -8.49 | 6 |

$$\Delta e_{BC} = - \frac{8.49 \times 1000 \times 4\sqrt{2} \times 1000}{10000 \times 200 \times 100} = 0.29 \text{ mm}$$

3

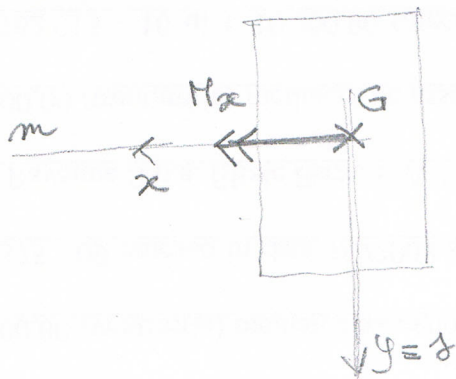


$$M_x = + 50 \cdot (0.3 - 0.14) = 8 \text{ kNm}$$

$$N_G = -50 \text{ kN}$$

$$A = 25 \times 60 = 1500 \text{ cm}^2$$

$$I_x = \frac{25 \times 60^3}{12} = 450000 \text{ cm}^4$$



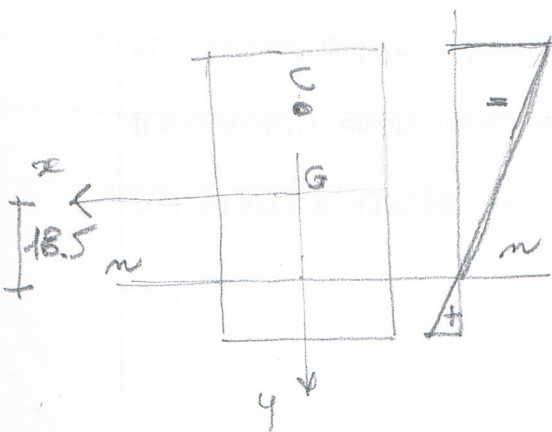
$$\sigma_z = \frac{-50 \times 10^3}{1500 \cdot 10^2} + \frac{8 \times 10^6}{450 \cdot 10^7} \cdot y \Rightarrow \sigma_z = -0.33 + 0.00178 y$$

$$m-m) -0.33 + 0.00178 y = 0 \Rightarrow y = 188 \text{ mm} = 18.8 \text{ cm}$$

$$I_x^2 = \frac{450000}{1500} = 300 \text{ cm}^2$$

$$d_{G-m} d_{C-G} = I_x^2$$

$$d_{G-m} = \frac{300}{30 - 14} = 18.8 \text{ cm}$$

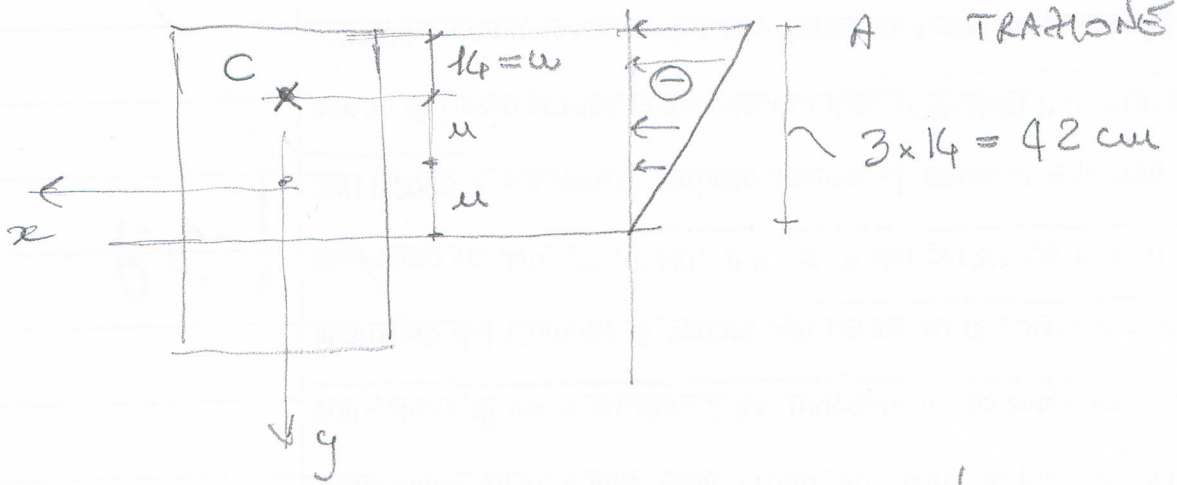


$$\sigma_z^{\text{max sup}} = -0.33 + 0.00178(-300) = -0.877 \text{ MPa}$$

$$N_c = -50 \text{ kN}$$

MATERIALE
NON RESISTENTE

(4)



$$\sigma_z^{\text{media}} = \frac{N}{b \cdot 3u} = \frac{-50000 \text{ N}}{250 \times 42} = -0.48 \frac{\text{N}}{\text{mm}^2}$$

$$\sigma_z^{\text{max}} = 2 \sigma_z^{\text{media}} = -0.96 \frac{\text{N}}{\text{mm}^2}$$