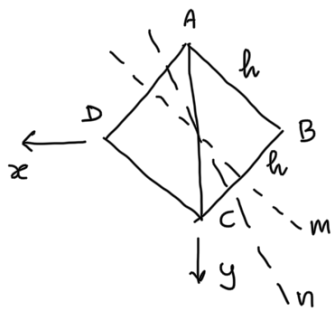


Prova scritta telematica del 25 gennaio 2022

**Sintesi della soluzione**



$$1) J_x = th^3 ; J_y = \frac{2}{3} th^3$$

$$\sigma_z = \frac{M\sqrt{2}}{2th^3} \left( y + \frac{3}{2}x \right) ; \sigma_{max} = \frac{3M}{4th^2} \quad (D; B)$$

$$y = -\frac{3}{2}x \quad (\text{asse neutro})$$

$$2) \Delta l = \frac{15M}{2Eth}$$

$$3) \sigma_1 = 0 ; \sigma_{2,3} = \frac{3}{8} \frac{M}{th^2} (1 \pm \sqrt{5})$$

$$4) M = \frac{2th^2}{3} \sigma_{adm}$$