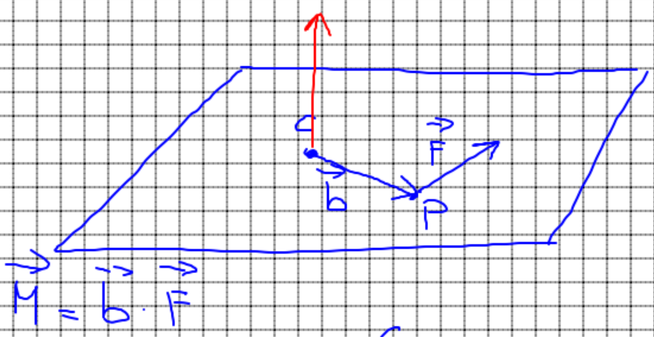
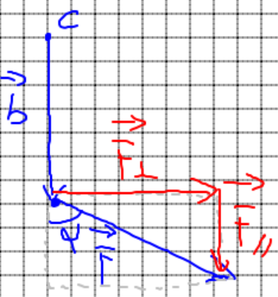
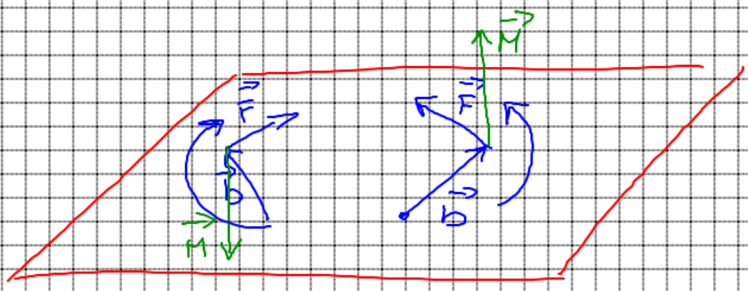
FORZE E ROTAZIONI: MOMENTI E COPPIE



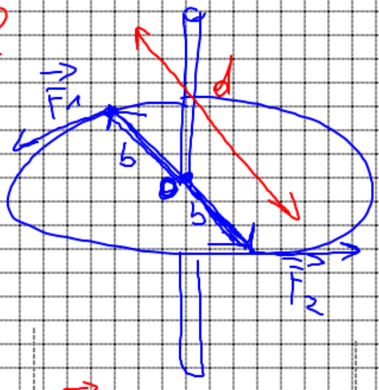
$$\vec{M} = \vec{b} \cdot \vec{F}$$

$$|\vec{M}| = |\vec{b}| \cdot |\vec{F}| \sin\alpha$$



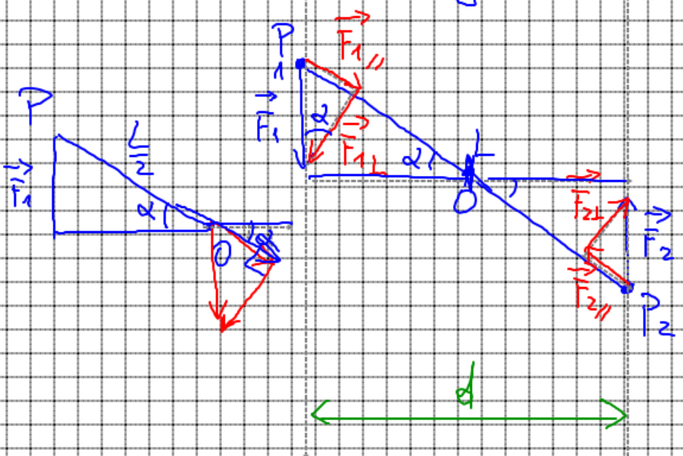


ESEMPIO



$$|\vec{F}_1| = |\vec{F}_2| = F$$

$$M = bF_1 + bF_2 = bF + bF = 2bF = dF$$



$$|\vec{F}_1| = |\vec{F}_2| = F$$

$$L = \overline{P_1 P_2}$$

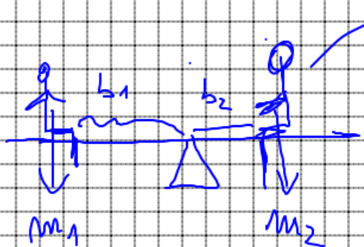
$$\boxed{M = dF}$$

$$[M] = [m][N]$$

$$F_{1\perp} : F_1 = \frac{d}{L} : \frac{L}{2} \qquad F_{1L} = F_1 \cdot \frac{d}{L} \cdot \frac{2}{L} \qquad F_{1L} = F_1 \frac{d}{L}$$

$$F_{2\perp} : F_2 = \frac{d}{L} : \frac{L}{2} \qquad F_{2L} = F_2 \frac{d}{L} \cdot \frac{2}{L} \qquad F_{2\perp} = F_2 \frac{d}{L}$$

$$M = F_{1\perp}\frac{L}{2} + F_{2\perp}\frac{L}{2} = F_{1\perp}\frac{d}{2} + F_{2\perp}\frac{d}{2} = (F_{1\perp} + F_{2\perp})\frac{d}{2} = 2F\frac{d}{2} = Fd$$



$$P_1 b_1 = P_2 b_2$$

$$M_1 = M_2$$