

Exemplo 2.9

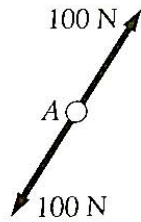


Figura 2.26

$$MF_1 := 1500\text{N} \quad \alpha_1 := 0\text{deg}$$

$$MF_2 := 866\cdot\text{N} \quad \alpha_2 := -\frac{\pi}{2}$$

$$MF_3 := 1000\text{N} \quad \alpha_3 := -\frac{\pi}{2} - 30\cdot\text{deg}$$

$$MF_4 := 2000\text{N} \quad \alpha_4 := \frac{\pi}{2} + 30\text{deg}$$

$$\underline{\underline{R}} := F_1 + F_2 + F_3 + F_4$$

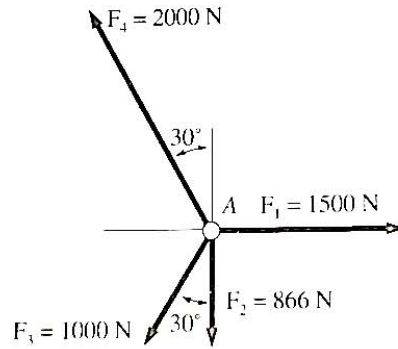


Figura 2.27

$$F_1 := \begin{pmatrix} MF_1 \cdot \cos(\alpha_1) \\ MF_1 \cdot \sin(\alpha_1) \end{pmatrix}$$

$$F_2 := \begin{pmatrix} MF_2 \cdot \cos(\alpha_2) \\ MF_2 \cdot \sin(\alpha_2) \end{pmatrix}$$

$$F_3 := \begin{pmatrix} MF_3 \cdot \cos(\alpha_3) \\ MF_3 \cdot \sin(\alpha_3) \end{pmatrix}$$

$$F_4 := \begin{pmatrix} MF_4 \cdot \cos(\alpha_4) \\ MF_4 \cdot \sin(\alpha_4) \end{pmatrix}$$

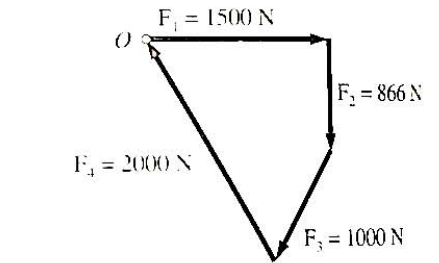


Figura 2.28

$$F_1 = \begin{pmatrix} 1500 \\ 0 \end{pmatrix} \text{N}$$

$$F_2 = \begin{pmatrix} 0 \\ -866 \end{pmatrix} \text{N}$$

$$F_3 = \begin{pmatrix} -500 \\ -866 \end{pmatrix} \text{N}$$

$$F_4 = \begin{pmatrix} -1000 \\ 1732.1 \end{pmatrix} \text{N}$$

$$R = \begin{pmatrix} 0 \\ 0 \end{pmatrix} \text{N}$$