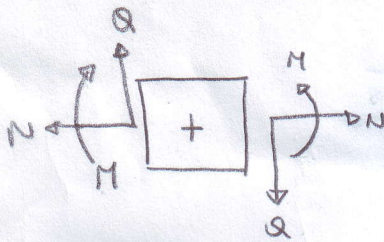
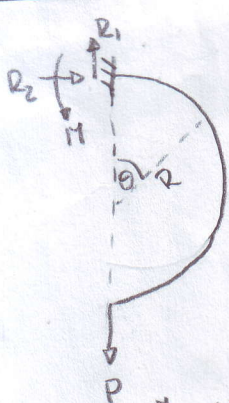


Convención



Caso 1:



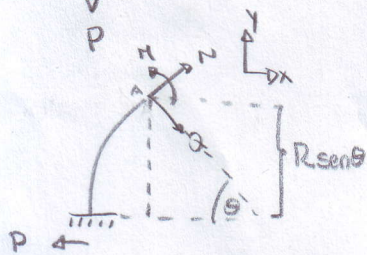
$$\sum F_x \Rightarrow R_2 = 0$$

$$\sum F_y \Rightarrow R_1 - P = 0 \Rightarrow R_1 = P$$

$$\sum M \Rightarrow M = 0$$

$$\theta \in [0, \pi]$$

0,5 Ptos



$$\hat{x}: N \sin \theta + Q \cos \theta$$

$$\hat{y}: N \cos \theta - Q \sin \theta$$

$$\sum F_x \Rightarrow N \sin \theta + Q \cos \theta - P = 0 \rightarrow N \sin \theta + Q \cos \theta = P \quad (1)$$

$$\sum F_y \Rightarrow N \cos \theta - Q \sin \theta = 0 \quad (2)$$

$$\sum M_A \Rightarrow M - P \cdot R \sin \theta = 0 \rightarrow M = P R \sin \theta$$

0,3 Ptos

$$(1) \cdot \sin \theta + (2) \cdot \cos \theta \Rightarrow N \sin^2 \theta + Q \cos \theta \sin \theta = \sin \theta + N \cos^2 \theta - Q \sin \theta \cos \theta = P \sin \theta$$

$$N (\sin^2 \theta + \cos^2 \theta) = P \sin \theta$$

$$N = P \sin \theta$$

0,4 Ptos

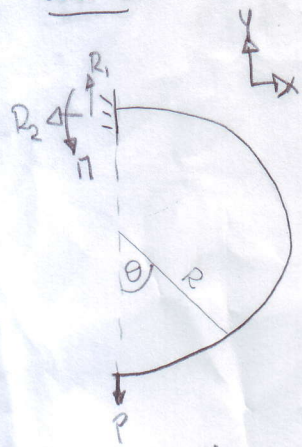
$$(2) \rightarrow N \cos \theta - Q \sin \theta = 0 \rightarrow N \cos \theta = Q \sin \theta$$

$$P \sin \theta \cos \theta = Q \sin \theta$$

$$Q = P \cos \theta$$

0,3 Ptos

Caso 2:



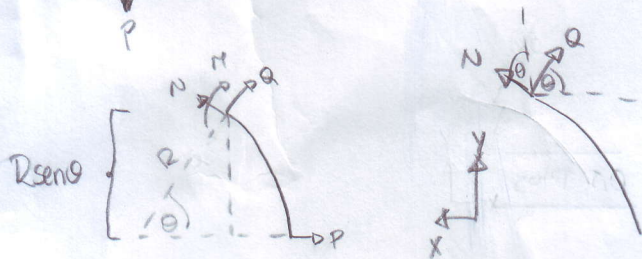
$$\sum F_x \Rightarrow R_2 = 0$$

$$\sum F_y \Rightarrow R_1 - P = 0 \Rightarrow R_1 = P$$

$$\sum M \Rightarrow M = 0$$

0,5 Ptos

$$\theta \in [0, \pi]$$



$$\hat{x}: N \sin \theta - Q \cos \theta$$

$$\hat{y}: N \cos \theta + Q \sin \theta$$

$$\sum F_y \Rightarrow N \cos \theta + Q \sin \theta = 0 \quad (1)$$

$$\sum F_x \Rightarrow N \sin \theta - Q \cos \theta - P = 0 \rightarrow N \sin \theta - Q \cos \theta = P \quad (2)$$

$$\sum M \Rightarrow M - P \cdot R \sin \theta = 0 \Rightarrow \underline{M = PR \sin \theta} \quad \underline{0,3 Ptos}$$

(1) $\cos \theta + (2) \sin \theta$

$$\rightarrow N \cos^2 \theta + Q \sin \theta \cos \theta + N \sin^2 \theta - Q \cos \theta \sin \theta = P \sin \theta$$

$$N (\cos^2 \theta + \sin^2 \theta) = P \sin \theta$$

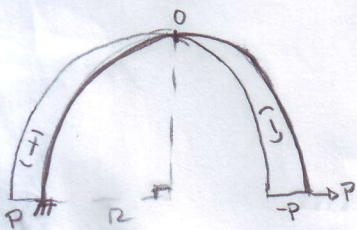
$$\underline{N = P \sin \theta} \quad \underline{0,4 Ptos}$$

$$(1) \rightarrow N \cos \theta + Q \sin \theta = 0$$

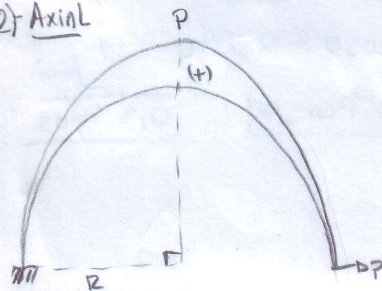
$$-N \cos \theta = Q \sin \theta \rightarrow (P \sin \theta) \cos \theta = Q \sin \theta \Rightarrow \underline{Q = -P \cos \theta} \quad \underline{0,3 Ptos}$$

Diagramas

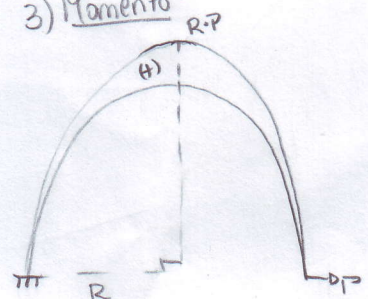
1) Corte:



2) Axis



3) Momento:



$\left. \begin{array}{l} \underline{1 Pto} \\ \text{(Diagrama)} \end{array} \right\} + \left. \begin{array}{l} \underline{0,5 Ptos} \\ \text{(máximos)} \end{array} \right\} \times \text{C/diagrama}$