

Q04 - MCR - 3B - 2302 { Momento con respecto al punto A;

DEL del miembro inferior:

$$+\circlearrowleft \sum M_A = 0; -100(250) + N_B(50) = 0$$

$$N_B = \frac{100(250)}{50} = 500 \text{ N}$$

$$+\rightarrow \sum F_x = 0; A_x - N_B \cos 45^\circ = 0 \rightarrow A_x = N_B \cos 45^\circ$$

$$\therefore A_x = 353.6 \text{ N}$$

$$+\uparrow \sum F_y = 0; A_y + 100 + N_B \sin 45^\circ = 0$$

$$A_y = -100 - N_B \sin 45^\circ = -453.6 \text{ N}$$

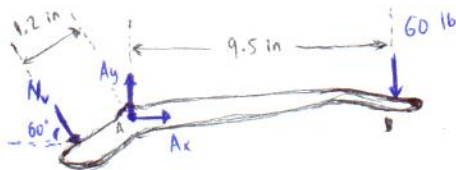
Magnitud de  $R_A$ :

$$R_A = \sqrt{A_x^2 + A_y^2} = 575 \text{ N}$$

Q04 - MCR - 3A & 3C - 2302

• Momento con respecto al punto A:

• DEL del elemento AB:



$$+\circlearrowleft \sum M_A = 0; N_v(1.2) - 60(9.5) = 0 \rightarrow N_v = \frac{60(9.5)}{1.2}$$

$$\therefore N_v = 475 \text{ lb}$$

$$+\rightarrow \sum F_x = 0; A_x + N_v \cos 60^\circ = 0 \rightarrow A_x = -N_v \cos 60^\circ = -237.5 \text{ lb}$$

$$\therefore A_x = 237.5 \text{ lb} \leftarrow$$

$$+\uparrow \sum F_y = 0; -N_v \sin 60^\circ + A_y - 60 = 0 \rightarrow A_y = 60 + N_v \sin 60^\circ = 471.4 \text{ lb}$$

$$\therefore A_y = 471.4 \text{ lb} \uparrow$$

En forma vectorial:

$$\vec{R}_A = (-237.5 \hat{i} + 471.4 \hat{j}) \text{ lb} \quad \left| \quad \vec{R}_A = 528 \text{ lb} \nearrow 63.3^\circ \right.$$