



$$\begin{cases} R_1 = 600(8) = 4800 \text{ N} \\ R_2 = \frac{1}{2}(1200 - 600)(8) = 2400 \text{ N} \\ R_3 = 900(12) = 10800 \text{ N} \end{cases}$$

$$\begin{cases} \sum F_x = 0: A_x - 6(1000)\sin 30^\circ \longrightarrow A_x = 3000 \text{ N} \\ \sum F_y = 0: A_y - 3(1000) - R_1 - R_2 + R_3 + N_B - 6(1000)\cos 30^\circ = 0 \\ \sum M_A = 0: -6R_1 - (2 + \frac{2}{3}(8))R_2 + 12R_3 - 18(6)(1000)\cos 30^\circ + 24N_B + M = 0 \end{cases}$$

$A_y = 4600 \text{ N} \uparrow$ $M = 10330 \text{ N}\cdot\text{m CCW}$

$$R_A = \sqrt{A_x^2 + A_y^2} = \sqrt{3000^2 + 4600^2} \longrightarrow R_A = 5490 \text{ N}$$