\[ \Sigma F = T_B \]

1. \[ F_A + F_C = 1040 \text{ N} \]

2. \[ \Sigma M_B = 0 = F_A \cos 30^\circ (6.7) - F_C \cos 30^\circ \]

3. \[ F_A = \frac{4F_C}{6.7} \]

From (1): \[ \frac{4F_C}{6.7} + F_C = 1040 \Rightarrow F_C = 651 \text{ N} \]

and \[ F_A = 389 \text{ N} \]

\[ \text{Prob 3-87 a} \]

\[ F = 200 \text{ N} \]

a) At point 'A': \[ M_a = (0.7, -2) \times 200 \]

b) \[ M = P \cdot d = 100 \]

\[ d = \frac{100}{20} = 0.417 \text{ m} \]

Note: \[ M_B = 0 \]

by placing \( P \) at pt. B