Question 1:

What is the moment that Force A exerts about point A? What is the moment that Force B exerts about Point A?

Calculations:

\[ M_A = F_x \times d = (100 \text{ N}) (2 \text{ m}) \times \sin(30^\circ) \]
\[ M_A = -200 \text{ Nm} \]

\[ d = 2 \times \sin(30^\circ) \]

\[ M_A = (200 \text{ N}) (2 \times \sin(30^\circ)) \text{ m} \]
\[ M_A = 200 \text{ Nm} \]

Solution

From Force A, \[ M_A = -200 \text{ Nm} \]
From Force B, \[ M_A = 200 \text{ Nm} \]