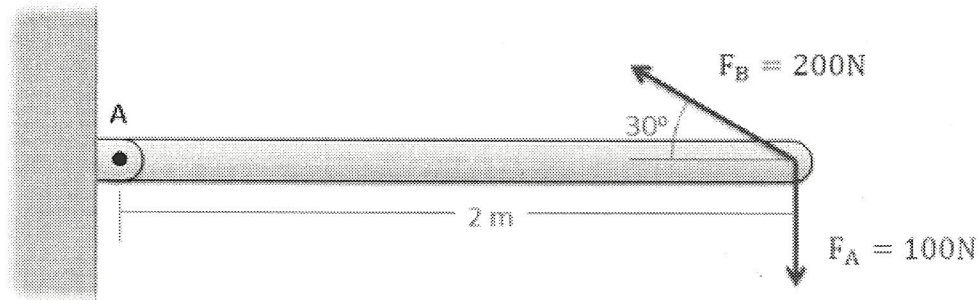


Question 1:

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



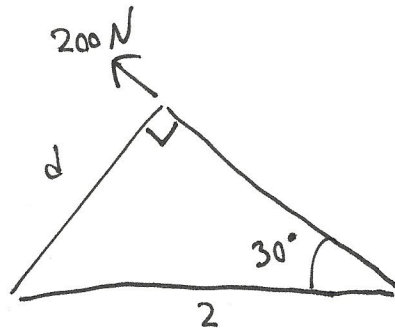
Calculations:

F_A

$$M_A = F \times d = (100 \text{ N})(2 \text{ m}) \downarrow \begin{array}{l} \text{clockwise is} \\ \leftarrow \text{negative} \end{array}$$

$$M_A = -200 \text{ Nm}$$

F_B



$$d = 2 \sin(30^\circ)$$

$$M_A = F \times d = (200 \text{ N})(2 \sin(30^\circ) \text{ m}) \uparrow \begin{array}{l} \text{counter-clockwise} \\ \text{is positive} \end{array}$$

$$M_A = 200 \text{ Nm}$$

Solution

$$\text{From } F_A \quad M_A = -200 \text{ Nm} \quad \text{From } F_B \quad M_A = 200 \text{ Nm}$$