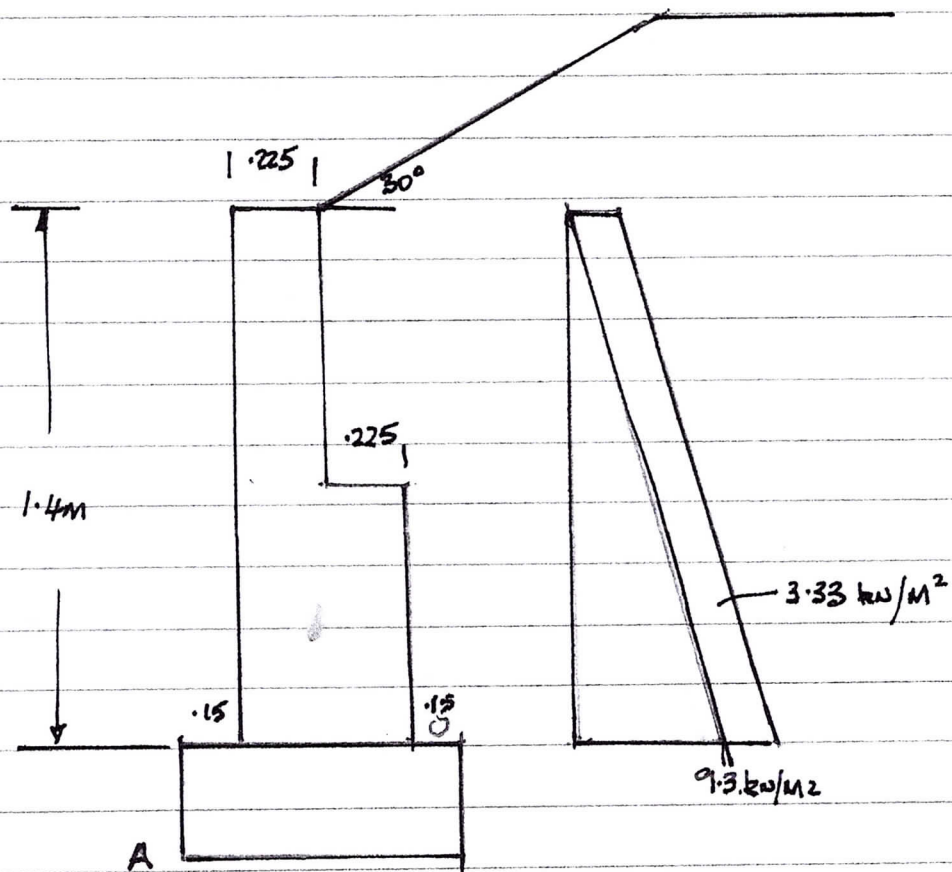




Overturning Moment about A.

$$= 9.33 \times \frac{1.4}{2} \left(\frac{1.4}{3} + 0.3 \right) + \frac{1.4 \times 1.4 \times 3.33}{2}$$

$$= \underline{8.23 \text{ kNm}}$$

Righting Moment about A

$$\begin{aligned} &= 1.4 \times 0.225 \times 20 \times \left(0.15 + \frac{0.225}{2} \right) + 0.7 \times 0.225 \times 20 \times \left(0.15 + \frac{0.225}{2} \right) \\ &+ 0.75 \times 3 \times 22 \times \frac{0.75}{2} + 0.7 \times 0.225 \times 20 \times \left(0.15 + \frac{0.225}{2} + \frac{0.225}{2} \right) \\ &+ 1.4 \times 0.15 \times 20 \times \left(0.75 - \frac{0.15}{2} \right) + 10 \times 0.45 \\ &= \underline{13.9 \text{ kNm}} \end{aligned}$$

$$\therefore \text{FoS} = \frac{13.9}{8.23} = 1.7 \therefore \text{OK.}$$