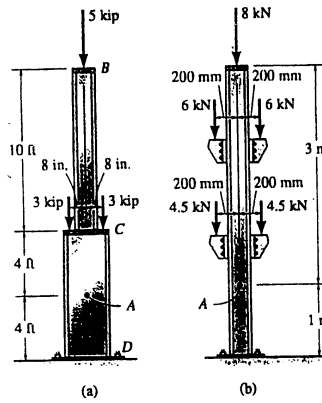


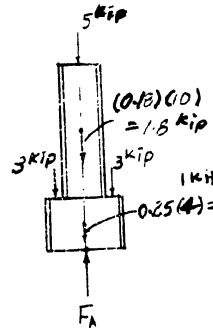
1-1 Determine the resultant internal normal force acting on the cross section through point A in each column. In (a), segment BC weighs 180 lb/ft and segment CD weighs 250 lb/ft. In (b), the column has a mass of 200 kg/m.



(a)

$$+\uparrow \Sigma F_y = 0; \quad F_A - 1.0 - 3 - 3 - 1.8 - 5 = 0$$

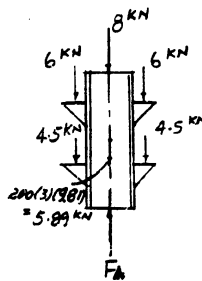
$$F_A = 13.8 \text{ kip} \quad \text{Ans}$$



(b)

$$+\uparrow \Sigma F_y = 0; \quad F_A - 4.5 - 4.5 - 5.89 - 6 - 6 - 8 = 0$$

$$F_A = 34.9 \text{ kN} \quad \text{Ans}$$



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