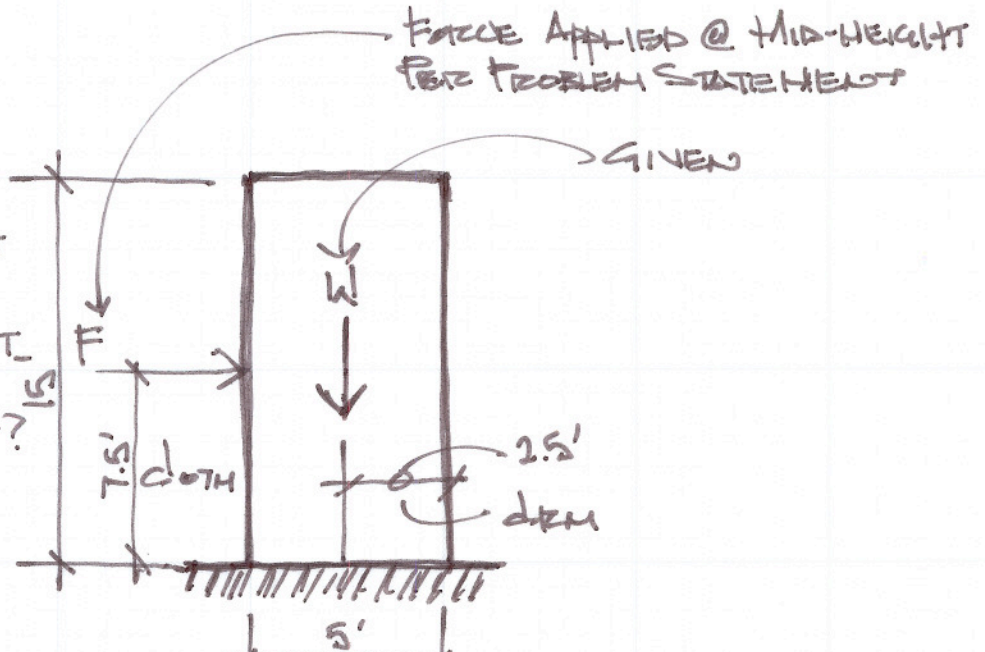


- THE LATERAL FORCE APPLIED AT MID-HEIGHT THAT WILL CAUSE THE OVERTURNING MOMENT EQUAL TO THE STABILIZING MOMENT?



① $M = F \times d$ - IDENTIFY THE OVERTURNING & RESISTING MOMENTS

$$OTM = F \times 7.5$$

STABILIZING MOMENT OR RESISTING MOMENT (RM) = $F \times d$ OR $W \times d_{RM}$

② SET THE $OTM = RM$

$$OTM = (F \times 7.5')$$

$$RM = (W \times 2.5')$$

$$\Rightarrow 7.5'F = 2.5'W$$

③ SOLVE FOR "F"

$$\Rightarrow F = \frac{2.5'W}{7.5'} = 0.33W$$

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