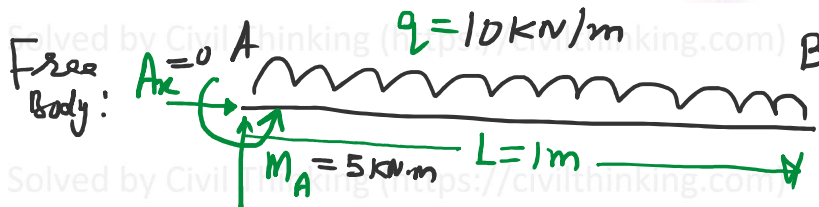
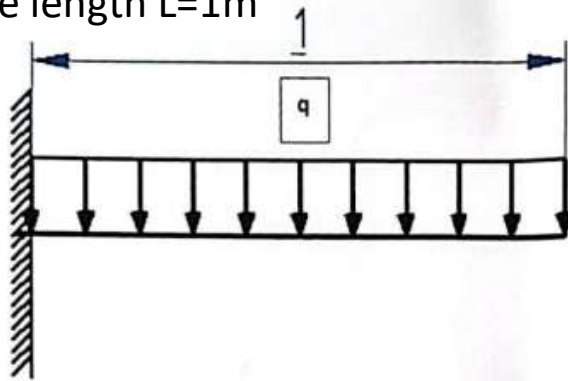


Shear and Moment diagram of cantilever carrying Uniformly distributed load of q (kN/m)

Draw Shear and Moment Diagram of the cantilever beam given, carrying a uniformly distributed load of $q=10\text{kN/m}$, take length $L=1\text{m}$



Equations of Equilibrium:
 $\sum F_y = 0:$

$$A_y - (10\text{kN/m} \times 1\text{m}) = 0$$

$$\Rightarrow \boxed{A_y = 10\text{kN}}$$

$\sum M_B = 0:$

$$(A_y \times 1\text{m}) - M_A - q \frac{L^2}{2} = 0$$

$$A_y - M_A - 10 \times \frac{1^2}{2} = 0$$

$$\Rightarrow M_A = 10 - \frac{10}{2} = 5\text{kN.m}$$

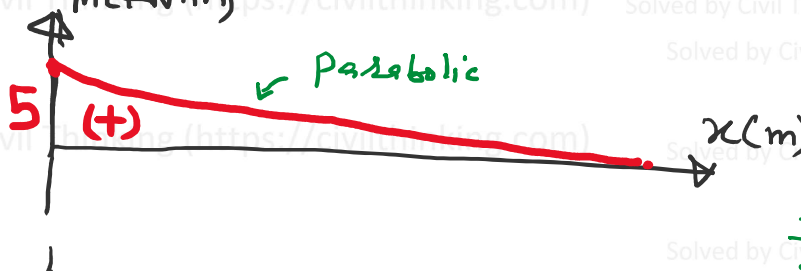
$$\Rightarrow \boxed{M_A = 5\text{kN.m}}$$

$$\sum F_x = 0: \boxed{A_x = 0}$$

Shear
Distrib.



Moment
Distrib.



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