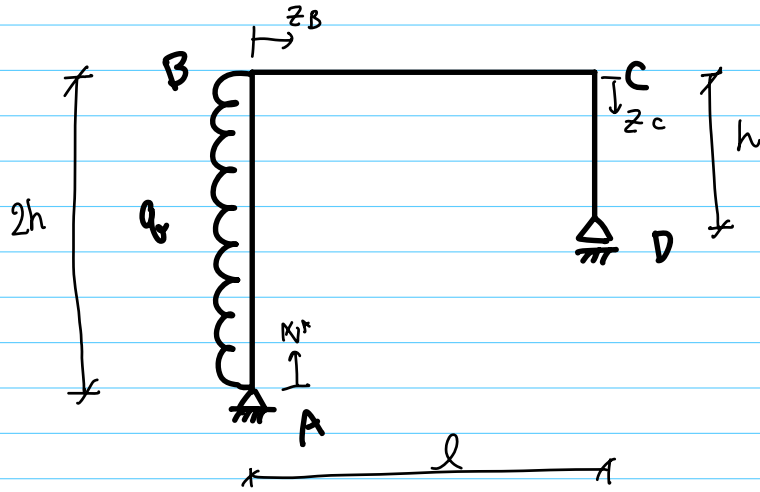


第11回

Solutions

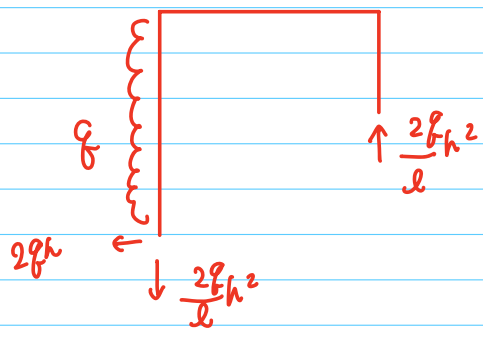


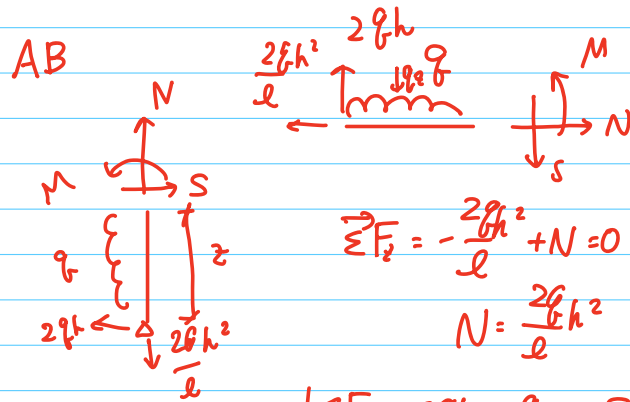
反力)

$$\begin{aligned} \sum \vec{F}_x = 0 \\ H_A + 2qh = 0 \\ H_A = -2qh \end{aligned}$$

$$\begin{aligned} \sum M_A = 0 \\ -2qh \cdot h + V_D l = 0 \\ V_D = \frac{2qh^2}{l} \end{aligned}$$

$$\begin{aligned} \sum \vec{F}_y = 0 \quad -V_A - V_D = 0 \\ V_A = -V_D = -\frac{2qh^2}{l} \end{aligned}$$





$$\sum F_z = -\frac{2gh^2}{l} + N = 0$$

$$N = \frac{2gh^2}{l}$$

$$\downarrow \sum F_y = -2gh + S_z = 0$$

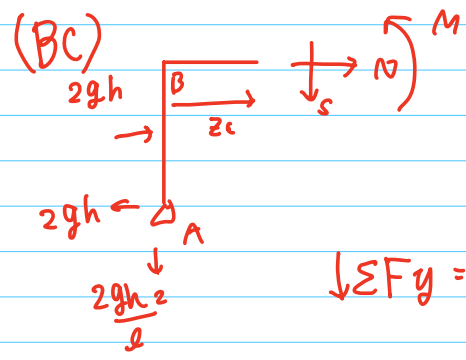
$$S_z = 2gh - qz$$

$$= 2g\left(h - \frac{z}{2}\right)$$

$$\downarrow M_z = M_z + qz \cdot \frac{z}{2} - 2gh \cdot z$$

$$M_z = 2ghz - \frac{q}{2}z^2$$

$$= 2g\left(hz - \frac{1}{4}z^2\right)$$



$$\sum F_x = N_c + 2gh - 2gh = 0$$

$$N_c = 0$$

$$\downarrow \sum F_y = \frac{2gh^2}{l} + S_c = 0$$

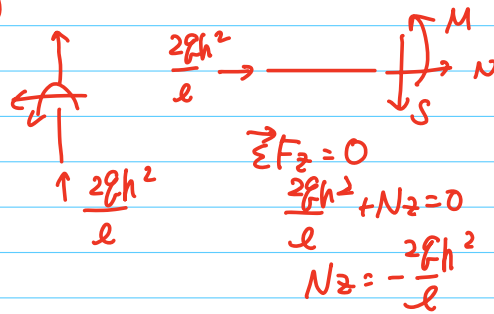
$$S_c = -\frac{2gh^2}{l}$$

$$\downarrow M_c = M_c + 2gh \cdot h - 2gh \cdot 2h + \frac{2gh^2}{l} \cdot z = 0$$

$$M_c = 4gh^2 - 2gh^2 - \frac{2gh^2}{l}z$$

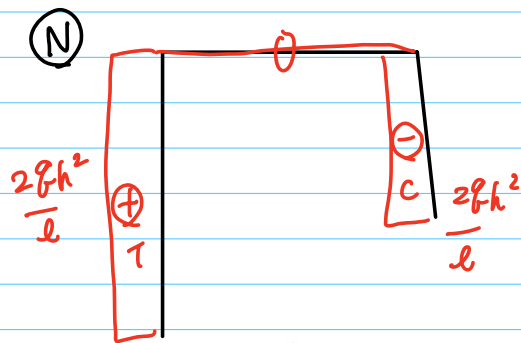
$$= 2gh^2 - \frac{2gh^2}{l}z = 2gh^2\left(1 - \frac{z}{l}\right)$$

(CD)

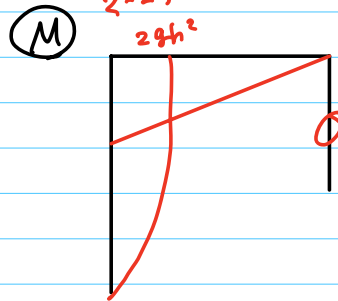
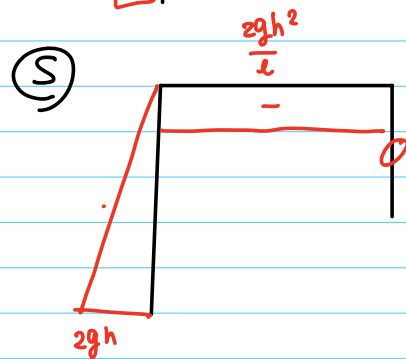


$$\begin{aligned}\sum F_z &= 0 \\ \frac{2gh^2}{l} + N_z &= 0 \\ N_z &= -\frac{2gh^2}{l}\end{aligned}$$

$$\begin{aligned}S_z &= 0 \\ M_z &= 0\end{aligned}$$



$$\begin{aligned}2h^2 - h^2 \\ M_{AB} &= 2g \left(hz - \frac{1}{4}z^2 \right) \\ z=0 & \quad M_{AB} = 0 \\ z=h & \\ z=2h & \quad M_{AB} = 0\end{aligned}$$



$$\begin{aligned}S_{AB} &= 2g \left(h - \frac{z}{2} \right) \\ z=0 & \quad S_{AB} = 2gh \\ z=h & \quad S_{AB} = 0 \\ z=2h & \quad S_{AB} = 0\end{aligned}$$