

$$R_{Ax} = 0, R_{Ay} = \frac{1}{3} qa, R_B = \frac{2}{3} qa$$

①  $0 \leq x < a$

$$M_g(x) = R_{Ay} \cdot x = \frac{1}{3} qa \cdot x$$

$$M_g(x=0) = \frac{1}{3} qa \cdot 0 = 0$$

$$M_g(x=2a) = \frac{1}{3} qa \cdot 2a = \frac{2}{3} qa^2$$

$$T(x) = R_{Ay} = \frac{1}{3} qa$$

$$T(x=0) = \frac{1}{3} qa$$

$$T(x=2a) = \frac{1}{3} qa$$

$$N(x) = R_{Ax} = 0$$

②  $a \leq x < 2a$

$$M_g(x) = R_{Ay} \cdot x - P \cdot (x-a) = \frac{1}{3} qa \cdot x - P \cdot (x-a) + P \cdot a = \frac{1}{3} qa \cdot x - qa \cdot (x-a) + qa^2 = -\frac{2}{3} qa \cdot x + qa^2$$

$$M_g(x=2a) = -\frac{2}{3} qa \cdot 2a + qa^2 = -\frac{4}{3} qa^2$$

$$M_g(x=a) = -\frac{2}{3} qa \cdot a + qa^2 = \frac{1}{3} qa^2$$

$$T(x) = R_{Ay} - P = \frac{1}{3} qa - 1 qa = -\frac{2}{3} qa$$

$$T(x=a) = T(x=2a) = -\frac{2}{3} qa$$

$$N(x) = R_{Ax} = 0$$

③  $2a \leq x < 3a$

$$M_g(x) = R_{Ay} \cdot x - P \cdot (x-a) + M = \frac{1}{3} qa \cdot x - qa \cdot (x-a) + qa^2$$

$$M_g(x=2a) = \frac{1}{3} qa \cdot 2a - qa \cdot (2a-a) + qa^2 = qa^2 \left( \frac{2}{3} - 1 + 1 \right) = \frac{2}{3} qa^2$$

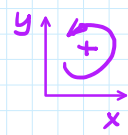
$$M_g(x=3a) = \frac{1}{3} qa \cdot 3a - qa \cdot (3a-a) + qa^2 = qa^2 (1 - 2 + 1) = 0$$

$$T(x) = R_{Ay} - P = -\frac{2}{3} qa$$

DATIE:  
 $P = 1 Pa = 1 qa$   
 $M = 1 M = 1 Pa = 1 qa^2$   
 $a$

SULLAME  
 $M_g(x), T(x), N(x)$

REAGIONE:  
 $\sum F_{ix} = 0$   
 $\sum F_{iy} = 0$   
 $\sum M_{iz} = 0$



$$\begin{cases} R_{Ax} = 0 \\ R_{Ay} - P + R_B = 0 \Rightarrow R_{Ay} = P - R_B = \frac{1}{3} qa, R_B = \frac{2}{3} qa \\ -P \cdot a - M + R_B \cdot 3a = 0 \Rightarrow R_B = \frac{1}{3a} (Pa + M) = \frac{1}{3a} (qa \cdot a + qa^2) \end{cases}$$

SPL.

$$\sum M_{ic} = R_{Ax} \cdot h - R_{Ay} \cdot a + P \cdot 0 - M + R_B \cdot 2a = 0$$

$$0 \cdot h - \frac{1}{3} qa \cdot a + 0 - 1 qa^2 + \frac{2}{3} qa^2 = 0 \Rightarrow 0 = 0$$