



① REAKCJE

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

$$\sum F_{ix} = R_{Ax} = 0$$

$$\sum F_{iy} = -P + R_{Ay} = 0 \Rightarrow R_{Ay} = P$$

$$\sum M_{ia} = P \cdot a + M_u = 0 \Rightarrow M_u = -Pa$$

② $0 \leq x < a$

$$M_g(x) = -P \cdot x$$

$$M_g(x=0) = -P \cdot 0 = 0$$

$$M_g(x=a) = -Pa$$

$$M_g(x=\frac{a}{2}) = -P \cdot \frac{a}{2} = -\frac{Pa}{2}$$

$$T(x) = -P$$

$$T(x=0) = -P$$

$$T(x=a) = -P$$

$$N(x) = 0$$

$$\frac{dM_g}{dx} = \pm T \quad \left| \frac{d(-Px)}{dx} = -P \right.$$

$$\frac{dT}{dx} = q \quad \left| \frac{d(-P)}{dx} = 0 \right.$$

③ $0 \leq x_2 < a$

$$M_g(x_2) = +R_{Ay} \cdot x_2 + M_u = P \cdot x_2 - Pa$$

$$M_g(x_2=0) = P \cdot 0 - Pa = -Pa$$

$$M_g(x_2=a) = P \cdot a - Pa = 0$$

$$T(x_2) = -R_{Ay} = -P \quad | \quad N(x) = R_{Ax} = 0$$

