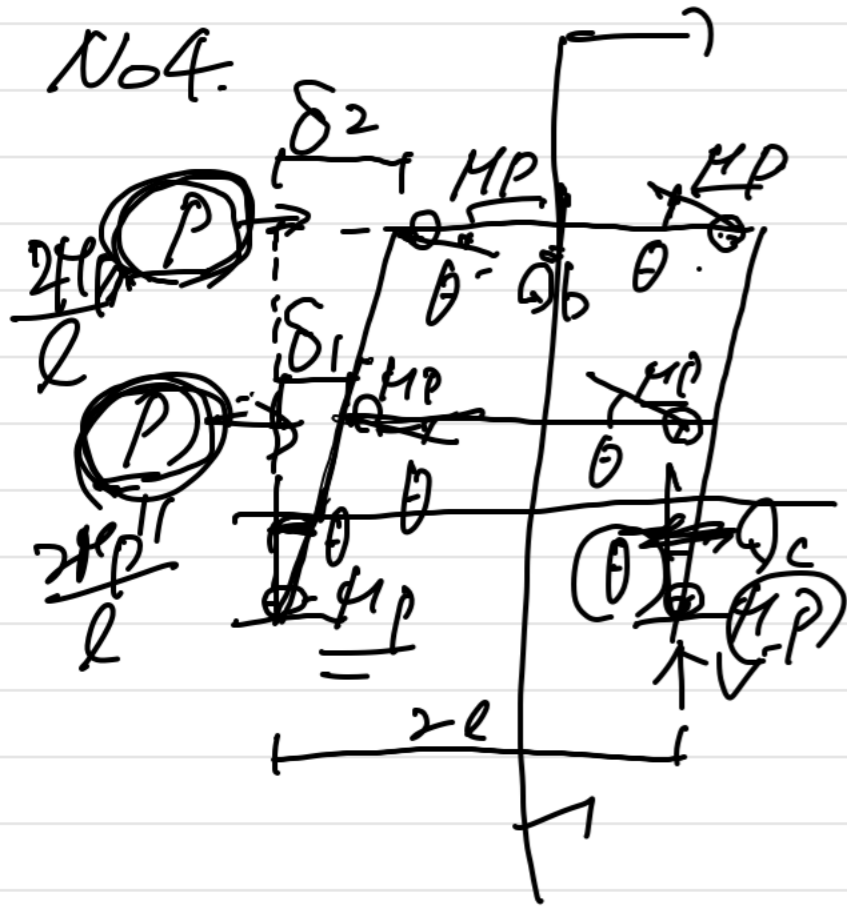


No.4.



- ① せん断力  $Q_b$  は  $\frac{MP}{l}$  である
  - ② 反力  $V$  は  $\frac{2MP}{l}$  である
  - ③  $P$  は  $\frac{2MP}{l}$  である
  - ~~④  $Q_c$  は  $\frac{MP}{l}$  である~~
- 仮想仕事の原理



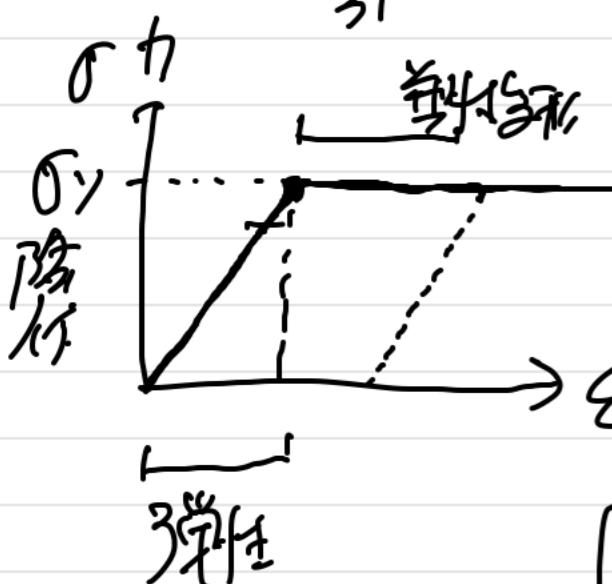
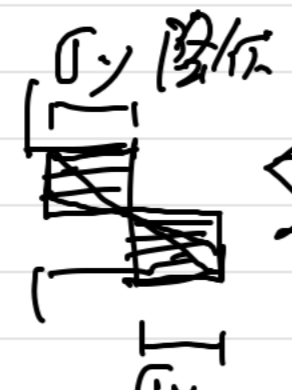
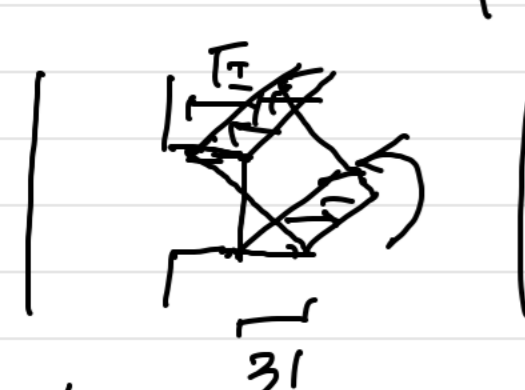
$$\boxed{\sum P\delta} \quad (\text{外力の仕事}) = \boxed{\sum M\theta} \quad (\text{内力の仕事})$$

$$\sum F_y = 0 \Rightarrow -\frac{2MP}{l} + V = 0 \Rightarrow \boxed{V = \frac{2MP}{l}}$$

$$\delta_1 = l\theta, \quad \delta_2 = \theta \times 2l = 2l\theta$$

$$\sum P\delta = P \times l\theta + P \times 2l\theta = 6MP\theta$$

$$\frac{2MP}{l} = 3P\theta \Rightarrow 3P\theta = 6MP\theta \Rightarrow P = \frac{2MP}{l}$$



$$\boxed{0.1 \text{ rad}} \rightarrow \boxed{\tan 0.1 \text{ rad}} = \boxed{0.1}$$

