



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

$$\sum F_{iy} = 0 \quad -P + R_{Ay} - 2P + R_B = 0$$

$$\sum T_{iA} = 0 \quad -P \cdot l + 2P \cdot l - R_B \cdot 2l = 0$$

$$R_B \cdot 2l = -P \cdot l + 2P \cdot l \quad \div: l$$

$$2R_B = -P + 2P$$

$$2R_B = P \rightarrow R_B = \frac{1}{2} P$$

$$-P + R_{Ay} - 2P + \frac{1}{2} P = 0$$

$$R_{Ay} = P + 2P - \frac{1}{2} P$$

$$R_{Ay} = 2\frac{1}{2} P$$

$$0 < x < l$$

$$F_s = -P$$

$$T_b = -P \cdot x$$

$$\text{for } x=0$$

$$T_b = 0$$

$$\text{for } x=l$$

$$T_b = -P \cdot l$$

$$\left. \begin{array}{l} x=0 \\ x=l \end{array} \right\} F_s = P$$

$$l < x < 2l$$

$$F_s = -P + R_{Ay}$$

$$F_s = -P + 2\frac{1}{2} P = 1\frac{1}{2} P$$

$$T_b = -P \cdot x + R_{Ay} \cdot (x-l)$$

$$\text{for } x=l$$

$$T_b = -P \cdot l + 2\frac{1}{2} P \cdot (l-l)$$

$$T_b = -P \cdot l$$

$$\text{for } x=2l$$

$$T_b = -P \cdot 2l + 2\frac{1}{2} P \cdot (2l-l)$$

$$T_b = -2 \cdot P \cdot l + 2\frac{1}{2} P \cdot l$$

$$T_b = \frac{1}{2} P \cdot l$$

$$\left. \begin{array}{l} x=l \\ x=2l \end{array} \right\} \begin{array}{l} F_s = -P + 2\frac{1}{2} P \\ F_s = 1\frac{1}{2} P \end{array}$$

$$2l < x < 3l$$

$$F_s = -P + R_{Ay} - 2P$$

$$F_s = -P + 2\frac{1}{2} P - 2P = -\frac{1}{2} P$$

$$T_b = -P \cdot x + R_{Ay} \cdot (x-l) - 2P \cdot (x-2l)$$

$$\text{for } x=2l$$

$$T_b = -P \cdot 2l + 2\frac{1}{2} P \cdot l - 0$$

$$T_b = -2 \cdot P \cdot l + 2\frac{1}{2} P \cdot l = \frac{1}{2} P \cdot l$$

$$\text{for } x=3l$$

$$T_b = -3 \cdot P \cdot l + 5 \cdot P \cdot l - 2P \cdot l$$

$$T_b = 0$$

$$\left. \begin{array}{l} x=2l \\ x=3l \end{array} \right\} F_s = -\frac{1}{2} P$$