

(5)

$$\begin{cases} ql/2 + \frac{24 EI}{e^3} u_1 - \frac{24 EI}{e^3} u_2 = 0 \\ ql + \frac{24 EI}{e^3} u_1 - \frac{48 EI}{e^3} u_2 = 0 \end{cases}$$

$$\begin{cases} -\frac{24 EI}{e^3} u_1 + \frac{24 EI}{e^3} u_2 = -ql/2 \\ \frac{24 EI}{e^3} u_1 - \frac{48 EI}{e^3} u_2 = -ql \end{cases}$$

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$$0 - \frac{24 EI}{e^3} u_2 = -\frac{3 ql}{2}$$

$$u_2 = \frac{3 ql^4}{48 EI} = \frac{ql^4}{16 EI}$$

$$u_1 = \frac{e^3}{24 EI} \cdot \left( -ql + \frac{48 EI}{e^3} \cdot \frac{ql^4}{16 EI} \right) = \frac{ql^4}{12 EI}$$

$$u_1 = \frac{ql^4}{12 EI}$$

$$u_2 = \frac{ql^4}{16 EI}$$

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| A B | A B |
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$$M_{AB} = ql^2/2 + \frac{3}{8} ql^2 = \frac{11}{24} ql^2 \quad \uparrow$$

$$T_{AB} = ql/2 + \frac{3}{4} ql = \frac{5}{4} ql \quad \leftarrow$$

$$M_{BA} = -ql^2/2 + \frac{3}{8} ql^2 = -\frac{7}{24} ql^2 \quad \uparrow$$

$$T_{BA} = ql/2 - \frac{3}{4} ql = -\frac{1}{4} ql \quad \rightarrow$$