

$$
y=? \quad y_{A}^{\prime}=? \quad y_{c}=?
$$

$$
\begin{aligned}
& +J \sum M_{B}=0: \\
& \frac{L}{3}\left(\frac{2 \mu L}{3}\right)-L A_{y}=0
\end{aligned}
$$

$$
A_{y}=\frac{2}{9} w L \quad \vec{A}_{y}=\frac{2}{9} w L \uparrow
$$

$$
q=\frac{2}{9} w L\langle x\rangle^{-1}-w\left\langle x-\frac{L}{3}\right\rangle^{0}
$$

$$
E I y^{\prime \prime}=M=\frac{2}{9} w L\langle x\rangle^{\prime}-\frac{w v}{2}\left\langle x-\frac{4}{3}\right\rangle^{2}
$$

$$
E I y^{\prime}=\frac{1}{9} w L\langle x\rangle^{2}-\frac{w}{6}\left\langle x-\frac{L}{3}\right\rangle^{3}+C_{1}
$$

$$
\left.\begin{array}{l}
E \pm y^{\prime}=\frac{1}{9} w L\langle x\rangle^{2}-\frac{w}{6}\left\langle x-\frac{L}{3}\right\rangle^{3}+C_{1} \\
E I y=\frac{1}{27} w L\langle x\rangle^{3}-\frac{w}{24}\left\langle x-\frac{L}{3}\right\rangle^{4}+C_{1} x+C_{2}
\end{array}\right\} \begin{aligned}
& \text { Muknowns: } \\
& C_{1} \& C_{2}
\end{aligned}
$$

Page 218, $\quad \frac{1}{\rho}=\frac{M}{E I} \cdot \cdots . .(4-21) \quad \rho=$ radina of curvatiers
K: curcatere

$$
\begin{aligned}
& K=\frac{y^{\prime}}{\left[1+\left(y^{\prime}\right)^{2}\right]^{3 / 2}} \quad y^{\prime} \ll 1, \quad K \approx \frac{y^{\prime}}{\left[1+0^{2}\right]^{3 / 2}} \approx y^{\prime \prime} \\
& \frac{1}{p}=k=y^{\prime \prime} \quad y^{\prime \prime}=\frac{M}{\sigma^{\prime}} \quad M=E \pm y^{\prime \prime}
\end{aligned}
$$

B.C. (1) $y(0)=0: \quad 0=c_{2}$
(2) $y(L)=0 \quad 0=\frac{1}{27} w L \cdot L^{3}-\frac{1 r}{24}\left(\frac{2 L}{3}\right)^{4}+C_{1} L$

$$
\therefore c_{1}=\square \quad y=\frac{1}{6 I}[\cdots]
$$

$$
\begin{aligned}
& E I y_{A}^{\prime}=c_{1} \quad\left(y_{A}^{\prime}=\frac{c_{1}}{E I}=\square\right. \\
& E I y_{c}=\frac{1}{27} d \operatorname{L}\left(\frac{c}{3}\right)^{3}+c_{1}\left(\frac{c}{3}\right)=\square \\
& y_{c}=\frac{1}{E=I}[\cdots]
\end{aligned}
$$

9.39


$$
\begin{gathered}
y_{A}^{\prime}=? \quad y_{B}=? \quad y_{D}=? \\
q=-p\langle x-a\rangle^{-1}+2 p\langle x-2 a\rangle^{\prime \prime} \\
V=-p\langle x-a\rangle^{\circ}+2 p\langle x-2 a\rangle^{\circ}
\end{gathered}
$$

$$
E x y^{\prime \prime}=M=-p\langle x-a\rangle^{\prime}+2 p\langle x-2 a\rangle^{\prime}
$$

$$
\left.\begin{array}{l}
E I y^{\prime}=-\frac{p}{2}\langle x-a\rangle^{2}+p\langle x-2 a\rangle^{2}+c_{1} \\
E I y=-\frac{p}{6}\langle x-a\rangle^{3}+\frac{p}{3}\langle x-2 a\rangle^{3}+c_{1} x+c_{2}
\end{array}\right\} \begin{aligned}
& \text { unkenowns: }
\end{aligned}
$$

$\left.\begin{array}{rl}\text { B.C. (1) } y(0)=0 & \cdots . . \\ \text { (2) } y(2 a)=0 & \cdots .\end{array}\right\} \quad c_{1}=\square \quad c_{2}=0$

$$
y_{A}^{\prime}=y^{\prime}(0)=0 \quad y_{B}=H(a)=0 \quad y_{D}=y(3 a)=0
$$

