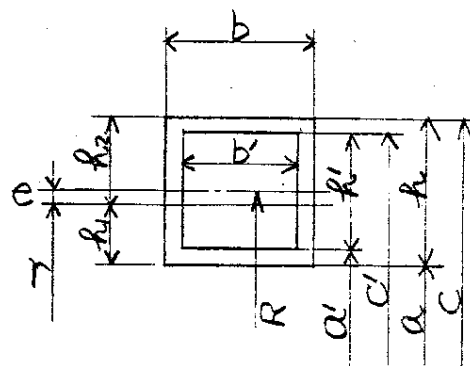
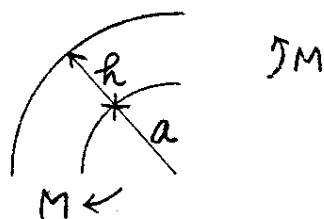


曲がり梁



$$a =$$

$$c =$$

$$a' =$$

$$c' =$$

$$b =$$

$$h =$$

$$b' =$$

$$h' =$$

$$A = \text{断面積} = b h - b' h' =$$

$$r = \text{中立軸半径} = \frac{A}{b \ln\left(\frac{R}{a}\right) - b' \ln\left(\frac{R}{a'}\right)} =$$

=

$$R = \text{圆心半径} =$$

$$e = R - r =$$

$$h_1 = r - a =$$

$$h_2 = h - h_1 =$$

応力

$$\sigma_{\max} = \frac{M h_1}{A e a} =$$

$$\sigma_{\min} = -\frac{M h_2}{A e c} = -$$