

$$D_4 = \dots$$

$$\sum M(4) = 0 \quad \checkmark \quad M(4)_{10} - U_4 \cdot h_4 \cdot \cos \beta_4 + D_4 \cdot h_4 \cdot \cos \gamma_4 - H \cdot y(4) = 0$$

$$D_4 = \frac{1}{\cos \gamma_4} \left(\frac{M(4)_{10}}{h_4} - U_4 \cos \beta_4 - H \frac{y(4)}{h_4} \right)$$

$$U_4 = \dots$$

$$\sum M(3) = 0 \quad \checkmark \quad M(3)_{10} - U_4 \cdot h_3 \cos \beta_4 - H \cdot y(3) = 0$$

$$U_4 = \frac{1}{\cos \beta_4} \left(\frac{M(3)_{10}}{h_3} - H \frac{y(3)}{h_3} \right)$$

$$D_4 = \frac{1}{\cos \gamma_4} \left(\frac{M(4)_{10}}{h_4} - \frac{M(3)_{10}}{h_3} + H \left(\frac{y(3)}{h_3} - \frac{y(4)}{h_4} \right) \right)$$

$$h_4 = 3 + 8 \cdot \frac{1}{8} = 4$$

$$\tan \beta_3 = \frac{2}{16} - \frac{1}{8} \quad \cos \beta_4 = \frac{8}{\sqrt{65}}$$

$$h_3 = 3 + 12 \cdot \frac{1}{8} = 4.5$$

$$\tan \gamma_4 = \frac{4}{4} = 1 \quad \cos \gamma_4 = \frac{1}{\sqrt{2}}$$

$$y(3) = y(4) = 7$$

$$D_4 = \sqrt{2} \left(\frac{M(4)_{10}}{4} - \frac{M(3)_{10}}{4.5} + H \left(\frac{7}{4.5} - \frac{7}{4} \right) \right) \quad -0.274935$$

$$= \frac{\sqrt{2}}{4} M(4)_{10} - \frac{\sqrt{2}}{4.5} M(3)_{10} - \frac{7\sqrt{2}}{36} H$$

$$D_{410}^{(B)} = \frac{\sqrt{2}}{4} M(4)_{10}^{(B)=12} - \frac{\sqrt{2}}{4.5} M(3)_{10}^{(B)=8} = 1.7285$$

$$-\frac{7\sqrt{2}}{36} H^{(B)} = -1.3749$$

$$D_{410}^{(C)} = \frac{\sqrt{2}}{4} M(4)_{10}^{(C)=13.3^\circ} - \frac{\sqrt{2}}{4.5} M(3)_{10}^{(C)=17.3^\circ} = -0.7333$$

$$-\frac{7\sqrt{2}}{36} H^{(C)} = -0.3666$$

$$U_4 = \dots$$

$$U_4 = \frac{\sqrt{65}}{8} \left(\frac{M(3)_{10}}{4.5} - H \frac{7}{4.5} \right) = \frac{\sqrt{65}}{36} M(3)_{10} - \frac{7\sqrt{65}}{36} H$$

$$U_{410}^{(B)} = \frac{\sqrt{65}}{36} M(3)_{10}^{(B)=8} = 1.7916$$

$$-\frac{7\sqrt{65}}{36} H^{(B)} = -7.8383$$

$$U_{410}^{(C)} = \frac{\sqrt{65}}{36} M(3)_{10}^{(C)=17.3^\circ} = 3.8818$$

$$-\frac{7\sqrt{65}}{36} H^{(C)} = -2.0902$$