

$$H^{(A)} = \frac{L}{J} = \frac{20}{12.5} = 1.6$$

$$H^{(B)} = \frac{20}{12.5} = 1.6$$

$$\textcircled{1} \quad D_3 = \frac{\sqrt{2}}{5} (M_{3,0} - M_{2,0}) + \frac{\sqrt{2}}{8} H = D_{3,0} + H D_{3H}$$

$$D_{3,0}^{(A)} = \frac{\sqrt{2}}{5} (M_{3,0}^{(A)} - M_{2,0}^{(A)}) = \sqrt{2} \quad -\frac{\sqrt{2}}{8} H^{(A)} = -\frac{\sqrt{2}}{8} \cdot 1.6 = -\frac{\sqrt{2}}{5}$$

$$D_{3,0}^{(B)} = \frac{\sqrt{2}}{5} (M_{3,0}^{(B)} - M_{2,0}^{(B)}) = -\sqrt{2} \quad -\frac{\sqrt{2}}{8} H^{(B)} = -\frac{\sqrt{2}}{5}$$

$$V_3 = \frac{1}{5} (M_{2,0} - M_{3,0}) + \frac{1}{8} H = V_{3,0} + H V_{3H}$$

$$V_{3,0}^{(A)} = \frac{1}{5} (5 - 10) = -1 \quad \frac{1}{8} H^{(A)} = 0.2$$

$$V_{3,0}^{(B)} = \frac{1}{5} (35 - 30) = 1 \quad \frac{1}{8} H^{(B)} = 0.2$$

$$Q_4 = -\frac{M_{4,0}}{5} + 1.375 H = Q_{4,0} + H Q_{4H}$$

$$Q_{4,0}^{(A)} = -\frac{15}{5} = -3 \quad 1.375 H^{(A)} = 2.2$$

$$Q_{4,0}^{(B)} = -\frac{25}{5} = -5 \quad 1.375 H^{(B)} = 2.2$$

$$D_4 = \frac{\sqrt{2}}{5} (M_{4,0} - M_{3,0}) - \frac{\sqrt{2}}{8} H = D_{4,0} + H D_{4H}$$

$$D_{4,0}^{(A)} = \frac{\sqrt{2}}{5} (15 - 10) = \sqrt{2} \quad -\frac{\sqrt{2}}{8} H^{(A)} = -\frac{\sqrt{2}}{5}$$

$$D_{4,0}^{(B)} = \frac{\sqrt{2}}{5} (25 - 30) = -\sqrt{2} \quad -\frac{\sqrt{2}}{8} H^{(B)} = -\frac{\sqrt{2}}{5}$$

$$U_5 = \frac{M_{5,0}}{5} - \frac{20}{8} H = U_{5,0} + H U_{5H}$$

$$U_{5,0}^{(A)} = \frac{20}{5} = 4 \quad -\frac{20}{8} H^{(A)} = -4$$

$$U_{5,0}^{(B)} = \frac{20}{5} = 4 \quad -\frac{20}{8} H^{(B)} = -4$$

$$D_5 = \frac{\sqrt{2}}{5} (M_{4,0} - M_{5,0}) + \frac{\sqrt{2}}{8} H = D_{5,0} + H D_{5H}$$

$$D_{5,0}^{(A)} = \frac{\sqrt{2}}{5} (15 - 20) = -\sqrt{2} \quad \frac{\sqrt{2}}{8} H^{(A)} = \frac{\sqrt{2}}{5}$$

$$D_{5,0}^{(B)} = \frac{\sqrt{2}}{5} (25 - 20) = \sqrt{2} \quad \frac{\sqrt{2}}{8} H^{(B)} = \frac{\sqrt{2}}{5}$$