

$$R = 4$$

$$C = 2 + 1 = 3$$

$$\text{1st degree}$$

$$\delta_{10} = \frac{1}{EI} [144 * 0,25 - 36 * 0,33 - 8 * 0,33 - 10,66 * 0,5] =$$

$$\delta_{10} = \frac{16,15}{EI}$$

$$\delta_{11} = \frac{1}{EI} [2,25 * 0,33 + 0,5 * 0,33 + 2 * \frac{2}{3}] = \frac{2,25}{EI}$$

$$\delta_{10} + \alpha_1 \delta_{11} = 0$$

$$\frac{16,15}{EI} + \alpha_1 * \frac{2,25}{EI} = 0$$

$$\alpha_1 = -7,17$$

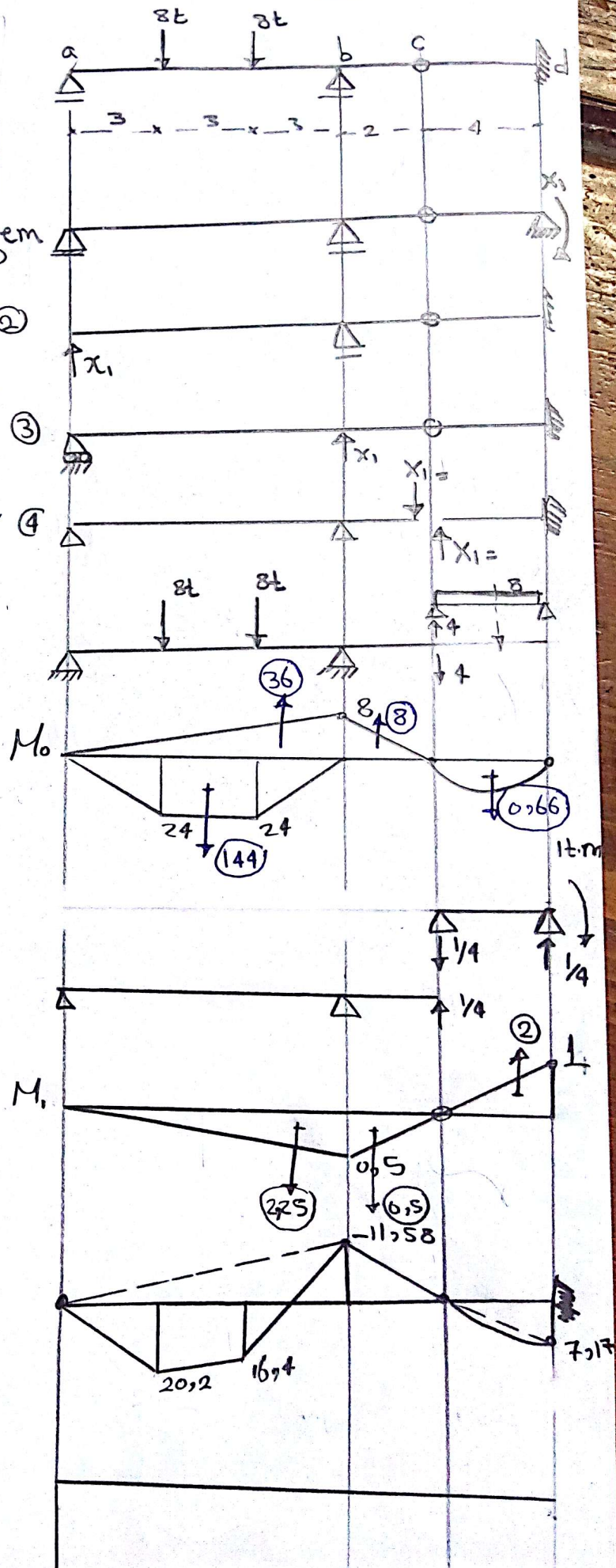
$$MF = M_0 + \alpha_1 M_1$$

Main System

②

③

④



محاضرة: استراكتشر

$$\delta_{10} = \frac{1}{EI} [-144 \times 1 + 10.66 \times 2 - 32 \times 2.66]$$

$$\delta_{10} = \frac{-208}{EI}$$

$$\delta_{11} = \frac{1}{EI} [9 \times 1.33 + 2 \times 1.33 + 8 \times 2.66]$$

$$\delta_{11} = \frac{36}{EI}$$

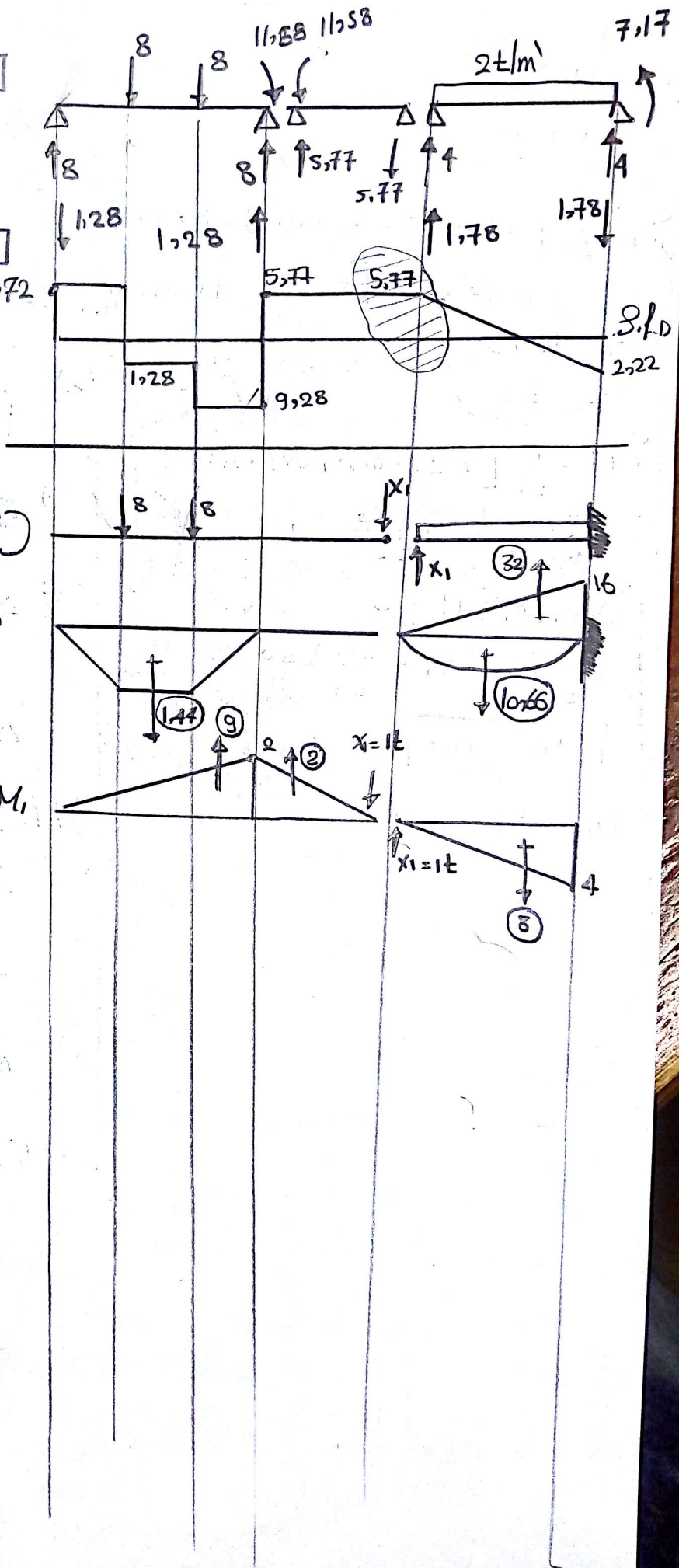
$$\delta_{10} + x_1 \delta_{11} = \frac{-208}{EI} + x_1 \times \frac{36}{EI} = 0$$

$$x_1 = 5.77$$

Main System 4

$M_0$

$M_1$





$$\begin{aligned} \delta_{10} + X_1 \delta_{11} + X_2 \delta_{12} &= 0 \\ \delta_{20} + X_1 \delta_{21} + X_2 \delta_{22} &= 0 \end{aligned}$$