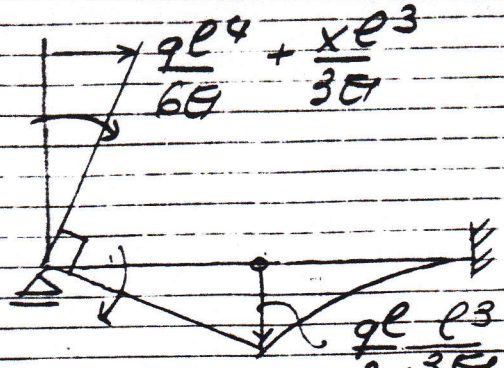
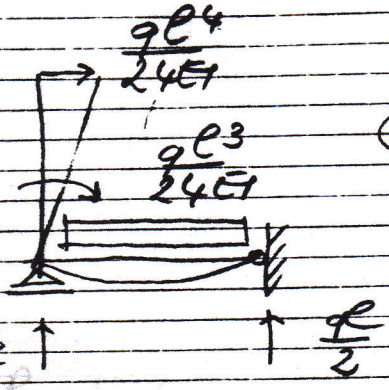
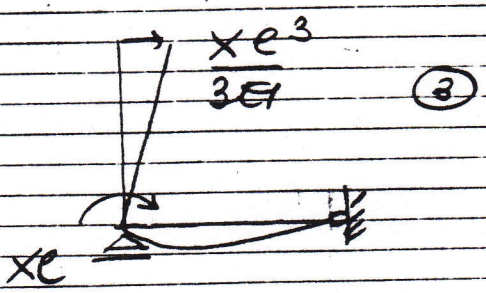
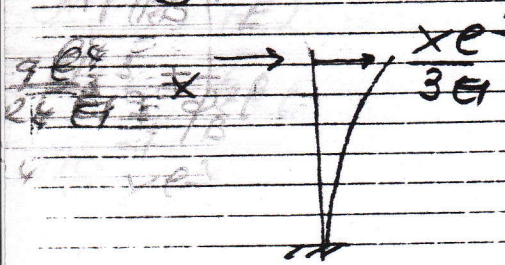


$$\frac{qe}{2}\cdot\frac{e^3}{3EI} + \frac{Xe^3}{3EI} = \frac{qe^4}{6EI} + \frac{Xe^3}{3EI}$$







$$\sum_{i=1}^{4} \delta_{iA} = \frac{qe^4}{6EI} + \frac{Xe^3}{3EI} + \frac{qe^4}{-24EI} + \frac{Xe^3}{3EI} + \frac{Xe^3}{3EI} = \frac{5qe^4}{24EI} + \frac{Xe^3}{EI} = -\Delta$$

$$\frac{5qe}{24} + X = -\frac{\Delta EI}{e^3} \qquad -\frac{5qe}{24} - \frac{\Delta EI}{e^3} = X$$