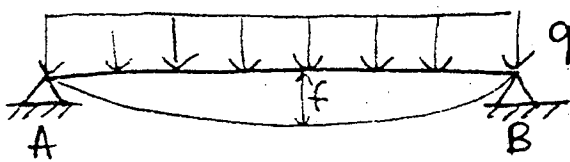


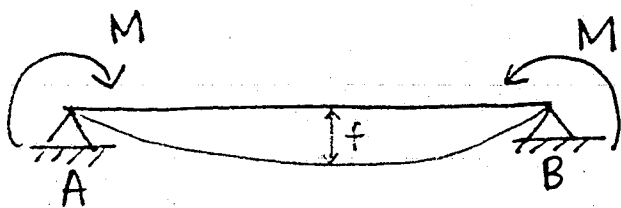
$$f = \frac{Fl^3}{48EI}$$

$$\varphi_B = \frac{Fl^2}{16EI} = -\varphi_A$$



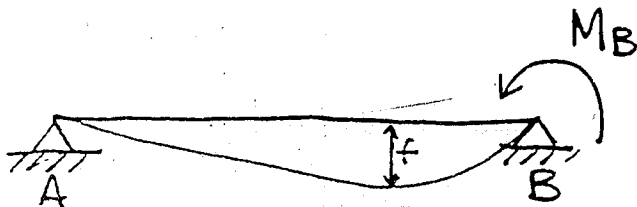
$$f = \frac{5ql^4}{384EI}$$

$$\varphi_B = \frac{ql^3}{24EI} = -\varphi_A$$



$$f = \frac{Ml^2}{8EI}$$

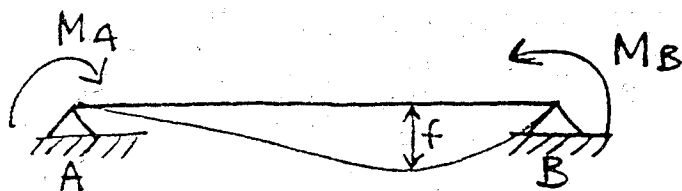
$$\varphi_B = \frac{Ml}{2EI} = -\varphi_A$$



$$f = \frac{M_B l^2}{16EI}$$

$$\varphi_A = -\frac{M_B l}{6EI}$$

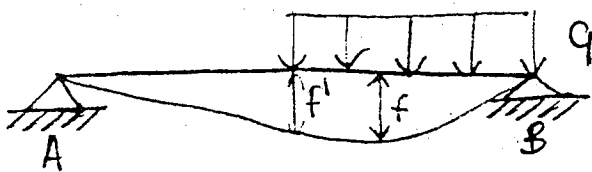
$$\varphi_B = \frac{M_B l}{3EI}$$



$$f = \frac{(M_A + M_B)l^2}{16EI}$$

$$\varphi_A = -\frac{l}{6EI} (2M_A + M_B)$$

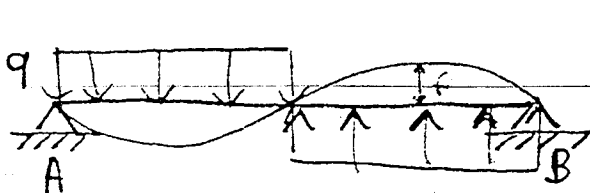
$$\varphi_B = \frac{l}{6EI} (2M_B + M_A)$$



$$f' = \frac{5ql^4}{384 \cdot 2EI}$$

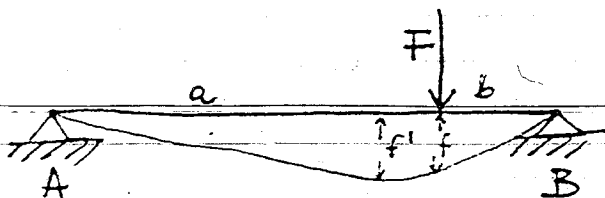
$$\varphi_A = -\frac{7}{384} \frac{ql^3}{EI}$$

$$\varphi_B = \frac{9}{384} \frac{ql^3}{EI}$$



$$f = \frac{5q(l/2)^4}{384EI}$$

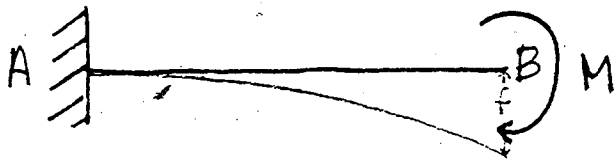
$$\varphi_A = \varphi_B = \frac{ql^3}{192EI}$$



$$f = \frac{Fa^2b^2}{3EIl}$$

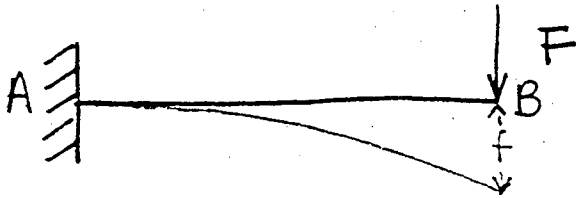
$$\varphi_A = -\frac{1}{6} \frac{Flb}{EI} (1-b^2)$$

$$\varphi_B = \frac{1}{6} \frac{Fla}{EI} (1-a^2)$$



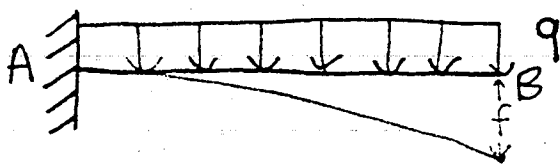
$$f = \frac{Ml^2}{2EI}$$

$$\psi_B = \frac{-Ml}{EI}$$



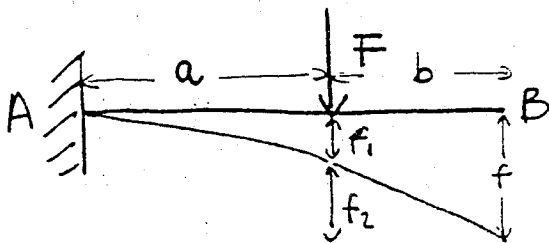
$$f = \frac{Fl^3}{3EI}$$

$$\psi_B = \frac{-Fl^2}{2EI}$$



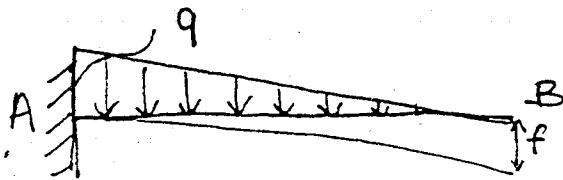
$$f = \frac{ql^4}{8EI}$$

$$\psi_B = \frac{-ql^3}{6EI}$$



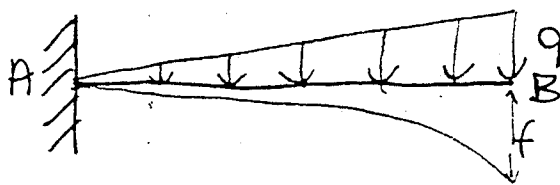
$$f = f_1 + f_2 = \frac{Fa^3}{3EI} + \frac{Fa^2}{2EI} b$$

$$\psi_B = \frac{Fa^2}{2EI}$$



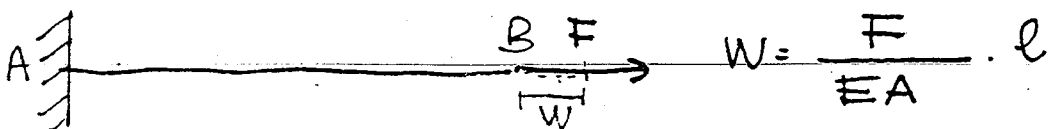
$$f = \frac{1}{30} \frac{ql^4}{EI}$$

$$\psi_B = \frac{-1}{24} \frac{ql^3}{EI}$$

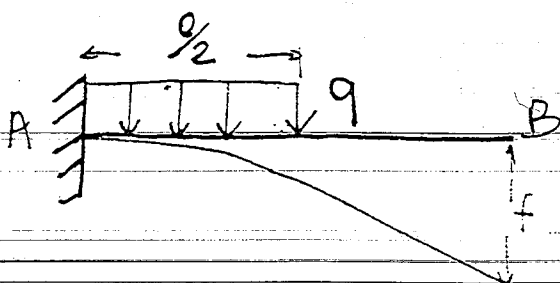


$$f = \frac{11}{120} \frac{ql^4}{EI}$$

$$\psi_B = \frac{-1}{8} \frac{ql^3}{EI}$$

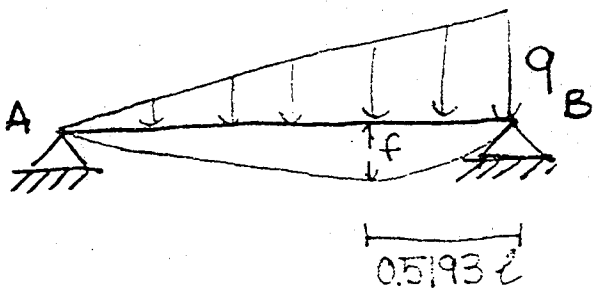


$$W = \frac{F}{EA} \cdot l$$



$$f = \frac{7}{384} \frac{ql^4}{EI}$$

$$\psi_B = \frac{-ql^3}{48EI}$$

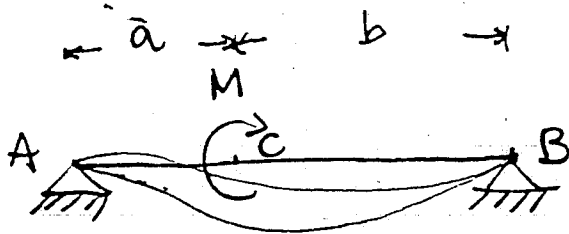


$$f_{e/2} = \frac{5}{384} \cdot \frac{q l^3}{2EI}$$

$$f = 0,01304 \frac{q l^3}{2EI}$$

$$\varphi_A = \frac{-7}{380} \frac{q l^3}{EI}$$

$$\varphi_B = \frac{8}{380} \frac{q l^3}{EI}$$

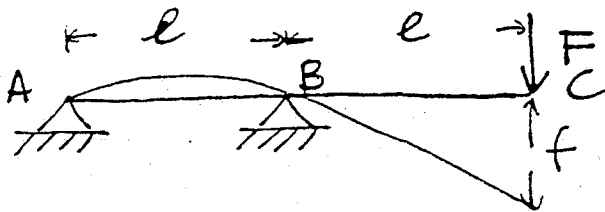


$$f_c = \frac{Mab(b-a)}{3EIE}$$

$$\varphi_A = \frac{M(e^2 - 3b^2)}{6EIE}$$

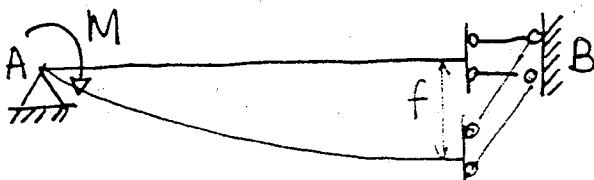
$$\varphi_B = \frac{M(e^2 - 3a^2)}{6EIE}$$

$$\varphi_C = -\frac{M(e^2 - 3ab)}{3EIE}$$

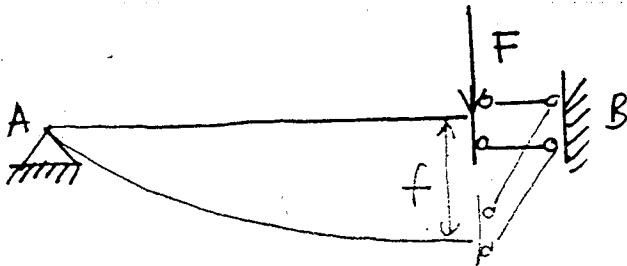


$$\varphi_C = -\frac{F e^2}{3EI}$$

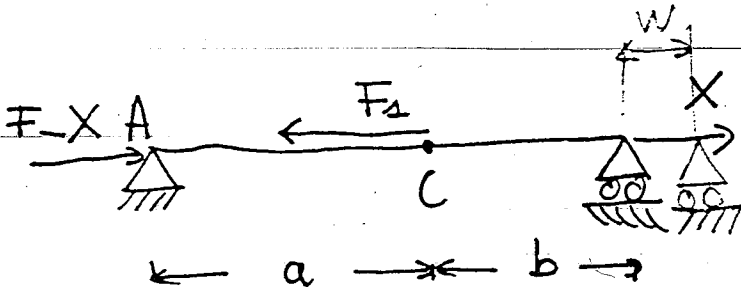
$$f_c = \frac{2 F e^3}{3EI}$$



$$f = \frac{M l^2}{2EI} \quad \varphi_A = -\frac{M l}{EI}$$

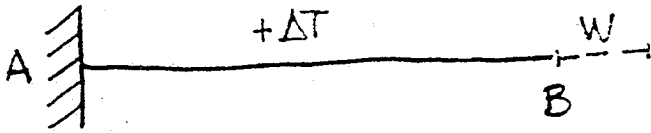


$$f = \frac{F l^3}{3EI} \quad \varphi_A = \frac{F l^2}{2EI}$$

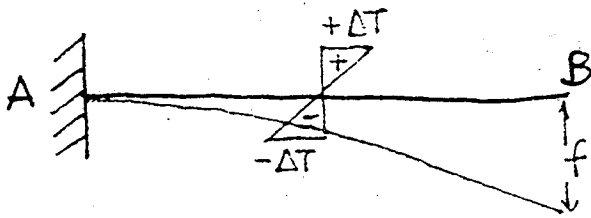


$$W_B = \frac{X}{EA} l - \frac{F}{EA} a$$

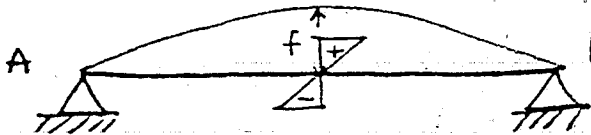
$$X = \frac{F a}{l}$$



$$w = \alpha \Delta T l$$

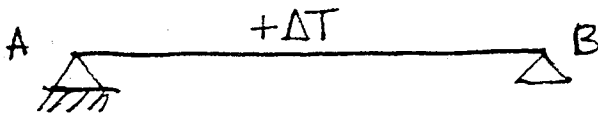


$$f_B = \alpha \frac{\Delta T}{h} l^2 \quad \psi_B = -2\alpha \frac{\Delta T}{h} l$$

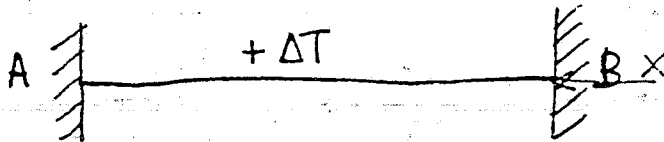


$$f = -\alpha \frac{\Delta T}{h} \frac{l^2}{4}$$

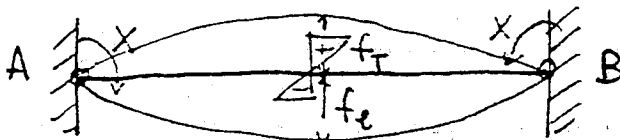
$$\psi_A = -\psi_B = \alpha \frac{\Delta T}{h} l$$



$$\psi_B = -\psi_A = \alpha \frac{\Delta T}{h} l$$



$$X = EA \alpha \Delta T$$



$$f = \frac{\alpha \Delta T l^2}{4h} \quad \psi_B = \frac{\alpha \Delta T l}{h}$$

$$X = \frac{2\alpha \Delta T EI}{h}$$

LA DEFORMATA TERMOELASTICA GLOBALE È NULLA, E LA TRAVE RESTA RETILINEA