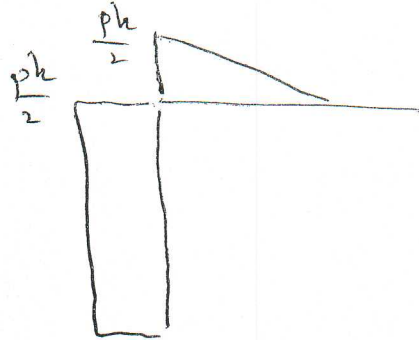
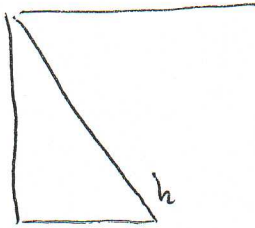
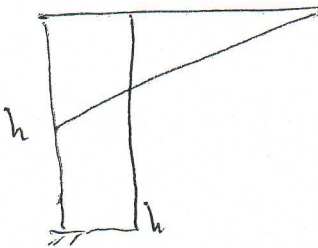
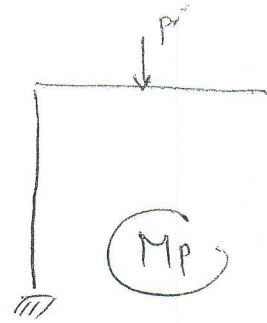
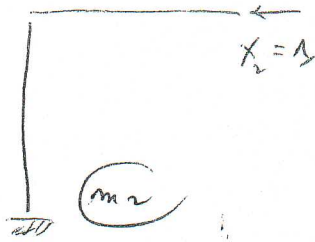
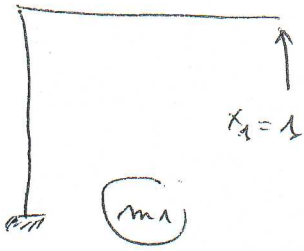


Exercice 1 :

$$H = 2 (x_1, x_2)$$



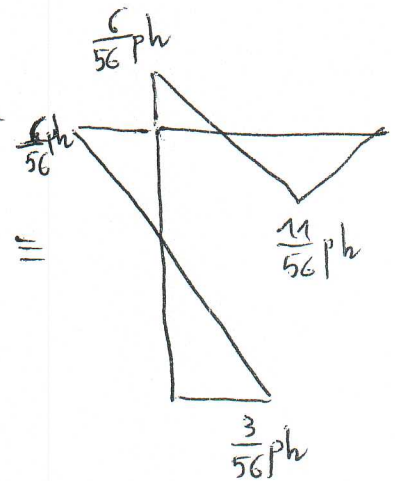
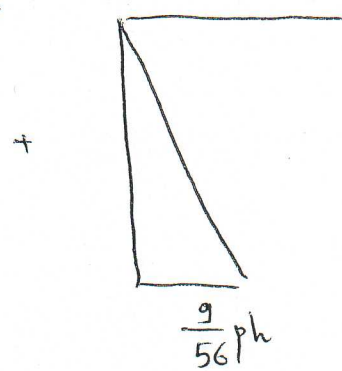
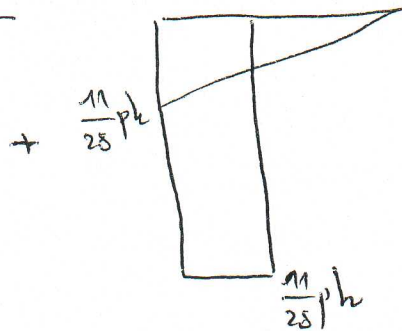
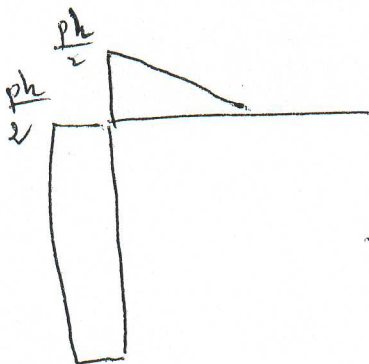
$$\delta_{11} x_1 + \delta_{12} x_2 + \Delta_{1P} = 0$$

$$x_1 = \frac{11}{28} P$$

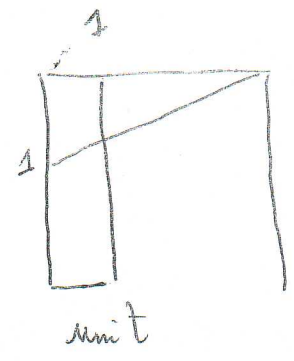
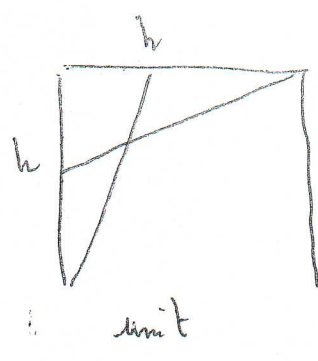
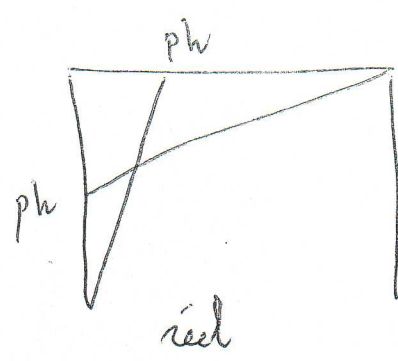
$$\delta_{21} x_1 + \delta_{22} x_2 + \Delta_{2P} = 0$$

$$x_2 = \frac{9}{56} P$$

$$M_H = (M_P) + x_1 (m_1) + x_2 (m_2)$$



Exercise 2 :



$$y_B = \frac{1}{EI} \left(p \frac{h}{2} \cdot \frac{2}{3} h + p \frac{h}{2} \cdot \frac{2}{3} h \right)$$

$$\theta_A = \frac{1}{EI} \left(p \frac{h}{2} h \cdot 1 + p \frac{h}{2} \cdot \frac{2}{3} h \right)$$

Exercise 3

$$y = \frac{pl^3}{48EI}$$

$$\theta_A = -\frac{pl^2}{16EI}$$

$$\theta_B = \frac{pl^2}{16EI}$$