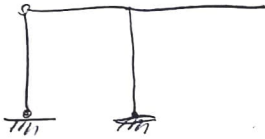
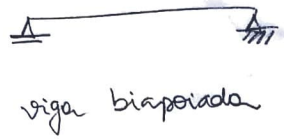
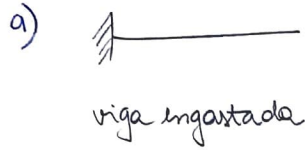


Quisa Bueno
11884592

PEF 3200
P2 - Q03



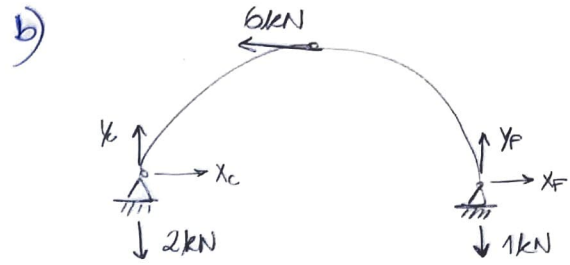
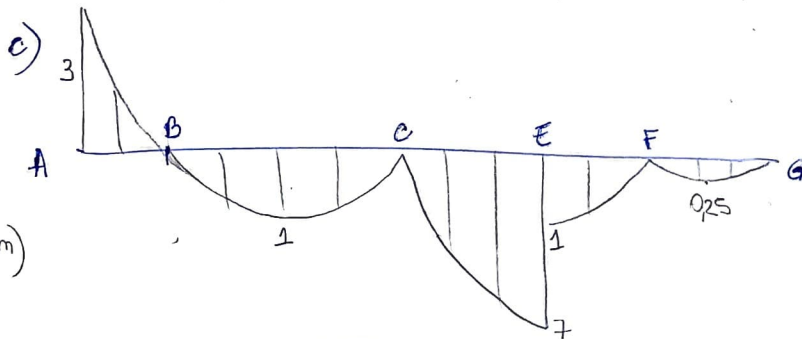
portal triarticulado



arco triarticulado



viga biapoiada



$$\sum M_c = 0 \Rightarrow 6 + 2y_f - 2 = 0$$

$$y_f = -2 \text{ kN}$$

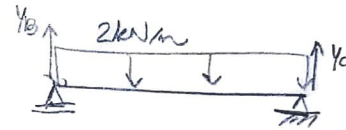
$$\sum Y = 0 \Rightarrow y_c - 2 - 2 - 1 = 0$$

$$y_c = 5 \text{ kN}$$

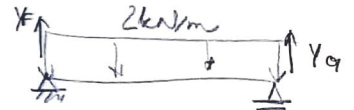
$$\sum M_f = 0 \Rightarrow x_f - 2 - 1 = 0$$

$$x_f = 3 \text{ kN}$$

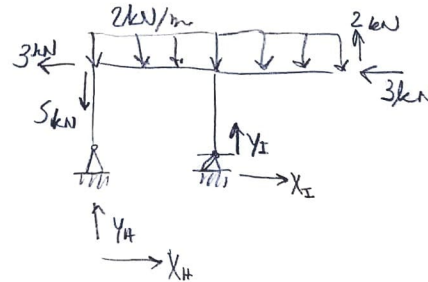
$$x_c = 3 \text{ kN}$$



simétrica: $y_b = y_c = 2 \text{ kN}$



$y_f = y_g = 1 \text{ kN}$



$$\sum Y = 0 \Rightarrow 5 + 4 = y_h + y_i + 2$$

$$\sum X = 0 \Rightarrow x_h + x_i = 6$$

$$\sum M_i = 0 \Rightarrow y_h - 2 - 6 - 5 = 0$$

$$y_h = 13 \text{ kN} \Rightarrow y_i = -6 \text{ kN}$$

$$\sum M_h = 0 \Rightarrow x_h = 0 \Rightarrow x_i = 6 \text{ kN}$$