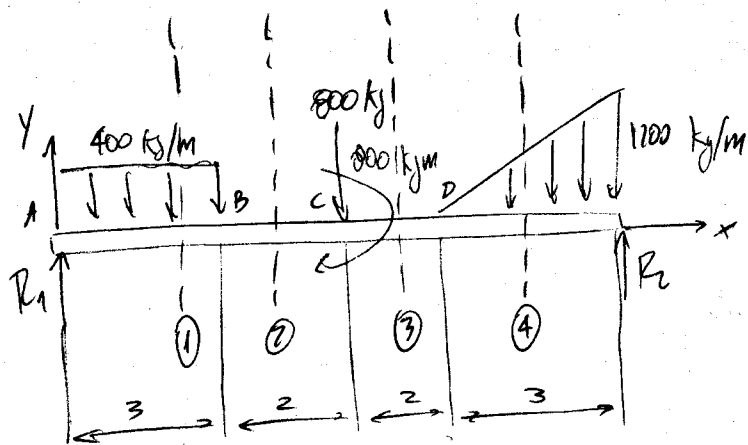


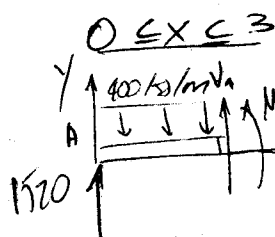


$$\sum M_{R1} = 0 : R_2 \cdot 10 - 1800 \cdot 9 - 800 \cdot 5 - 1200 \cdot 1,5 - 800 = 0$$

$$\Rightarrow R_2 = 2280 \text{ kJ}$$

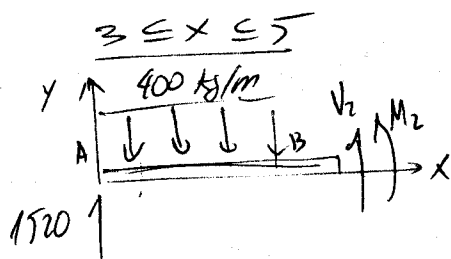
$$\sum F_y = 0 : R_1 + 2280 - 1800 - 800 - 1200 = 0$$

$$\Rightarrow R_1 = 1520 \text{ kJ}$$



$$\sum F_y = 0 : V + 1520 - 400x = 0 \Rightarrow V_1(x) = 400x - 1520 \text{ (crece lineal)}$$

$$\sum M_1 = 0 : M - 1520x - 400x \left(\frac{x}{2}\right) = 0 \Rightarrow M_1(x) = 1520x - 200x^2 \text{ (crece } (x^2))$$

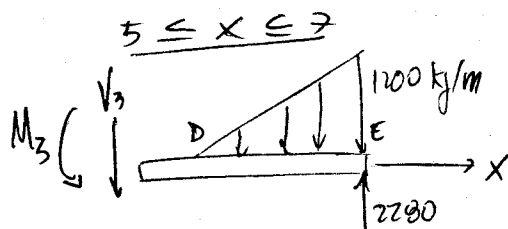


$$\sum F_y = 0 : V + 1520 - 1200 = 0 \Rightarrow V_2(x) = -320 \text{ (cte)}$$

$$\sum M_2 = 0 : M - 1520x + 1200(x - 1,5) = 0$$

$$\Rightarrow M_2(x) = 1520x - 1200(x - 1,5) \text{ (crece lineal)}$$

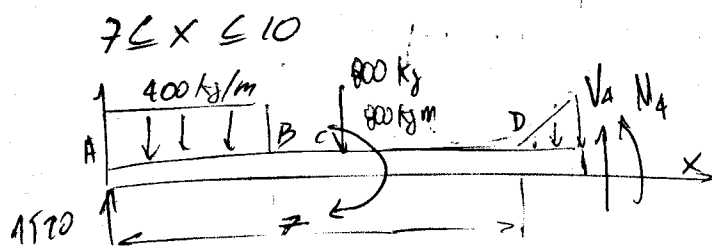
$$1800 + 320x$$



$$\sum F_y = 0 : V - 2280 + 1800 = 0 \Rightarrow V_3(x) = 480 \text{ (cte)}$$

$$\sum M_3 = 0 : M - 2280(10 - x) + 1800(9 - x) = 0$$

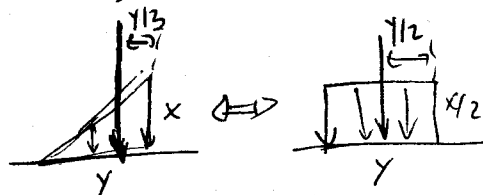
$$\Rightarrow M_3(x) = 2280(10 - x) + 1800(9 - x) \text{ (decrece lineal)}$$

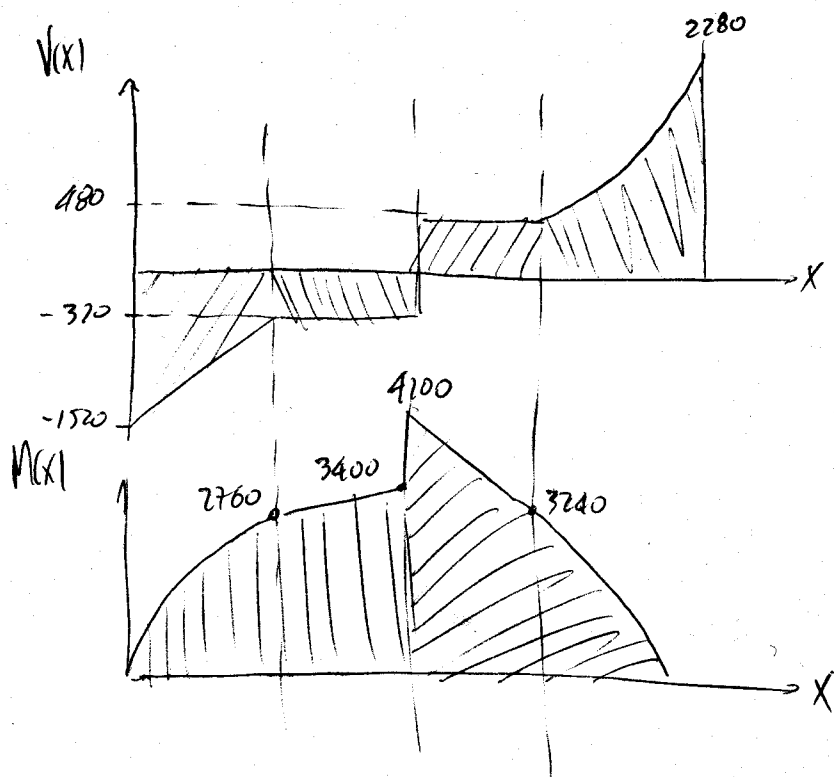


$$\sum F_y = 0 : V + 1520 - 1200 - 800 - 400(x - 7) \left(\frac{x - 7}{2}\right) = 0 \Rightarrow V_4(x) = 480 + 200(x - 7)^2 \text{ (crece } (x^2))$$

$$\sum M_2 = 0 : M - 1520(x) + 1200(x - 1,5) + 800(x - 5) + 200(x - 7)^2 \left(\frac{x - 7}{3}\right) - 800 = 0$$

$$M_4(x) = 1520x - 1200(x - 1,5) - 800(x - 5) - \frac{200}{3}(x - 7)^3 + 800 \text{ (decrece } (x^3))$$





Évaluando se tiene
que el momento máximo
es $M_{max} = 4200 \text{ kg}\cdot\text{m}$

en $x = 5 \text{ m}$

P.e

$R_1; R_2 \rightarrow 0,5 \text{ pts}$

$V_1(x); M_1(x) \rightarrow 0,5 \text{ pts}$

$V_2(x); M_2(x) \rightarrow 0,5 \text{ pts}$

$V_3(x); M_3(x) \rightarrow 1 \text{ pto}$

$V_4(x); M_4(x) \rightarrow 1 \text{ pto}$

$\int V(x) \rightarrow 1 \text{ pto}$

$\int M(x) \rightarrow 1 \text{ pto}$

M_{max}
 $x \rightarrow 0,5 \text{ pto.}$

$6 \text{ pts} + 1 \text{ P.B} = 7,0$