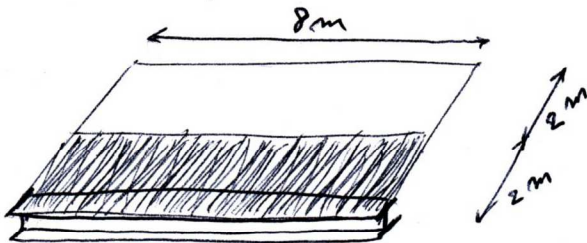
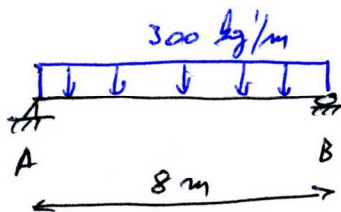


- On considère que les poutres répartissent les 150 kg/m<sup>2</sup> de manière uniforme sur la poutelle I



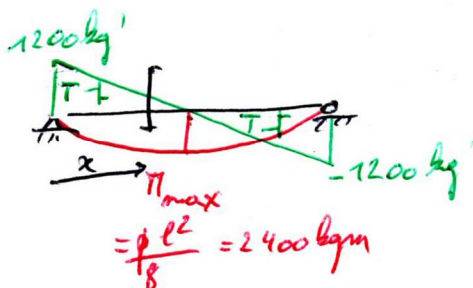
$$p = 150 \text{ kg/m}^2 \cdot \frac{4\text{m}}{2} = 300 \text{ kg/m}$$



$$Y_A + Y_B - 300 \cdot 8 = 0 \Rightarrow Y_A + Y_B = 2400 \text{ kg}'$$

$$C_{yA} = -300 \cdot 8 \cdot 4 + Y_B \cdot 8 = 0 \Rightarrow Y_B = \frac{300 \cdot 8 \cdot 4}{8} = 1200 \text{ kg}'$$

$$\Rightarrow Y_A = 1200 \text{ kg}'$$



$$\begin{cases} \pi(x) - 1200 \cdot x + 300 \cdot x \cdot \frac{x}{2} = 0 \\ \Rightarrow \pi(x) = -150x^2 + 1200x \\ -T(x) + 1200 - 300 \cdot x = 0 \Rightarrow T(x) = -300x + 1200 \\ T=0 \Rightarrow x = \frac{1200}{300} = 4 \text{ m} \\ \pi(4) = 2400 \text{ kgm} \end{cases}$$