

calcolo i punti dove  $M$  è nullo

$$M(s) = -\frac{q}{2}s^2 + \frac{5}{8}qls - \frac{ql^2}{8} = 0$$

$$s = \frac{\frac{5}{8}ql \pm \sqrt{\left(\frac{5}{8}ql\right)^2 - 4 \cdot \frac{q}{2} \cdot \frac{ql^2}{8}}}{-1}$$



CALCOLIAMO IL TAGLIO

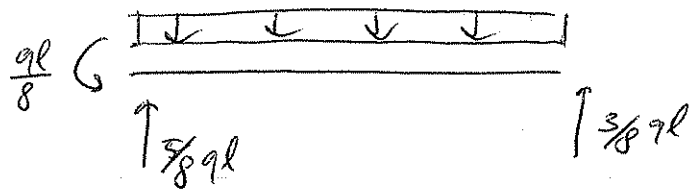
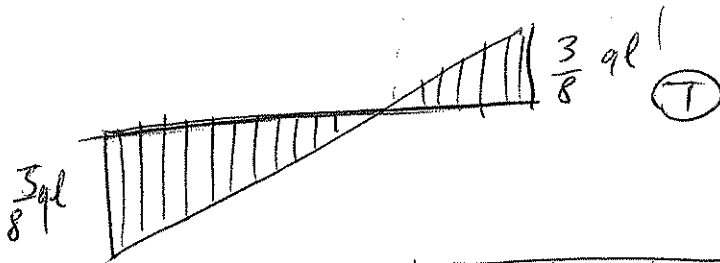
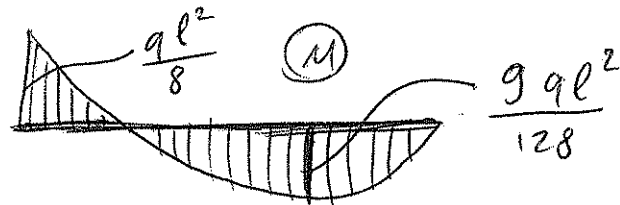
$$T(s) = -\frac{dM}{ds}$$

$$-M'(s) = T(s) = qs - \frac{5}{8}ql$$

$$T(0) = -\frac{5}{8}ql$$

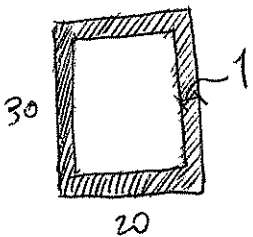
$$T(l) = ql - \frac{5}{8}ql = \frac{3}{8}ql$$

dove il mom. è max ( $\frac{5}{8}l$ ),  $T$  è nullo



$$V_{max} = -\frac{qz}{EI} \cdot \frac{s^4}{24} + \left(\frac{5}{8} \frac{qzl}{EI}\right) \frac{s^3}{6} - \left(\frac{qzl^2}{8EI}\right) \cdot \frac{s^2}{2}$$

$$= -\frac{qz}{EI} \frac{s^4}{24} + \frac{5}{48} \cdot \frac{qzl^2 s^3}{EI} - \frac{qzl^2 s^2}{16EI}$$



Sostituisco  $s$  con  $0,57l$  e con l'inerzia della trave e momento elastico presi da SAP e calcolo la  $V_{max}$

$$V_{max} = -2,80 \text{ mm}$$