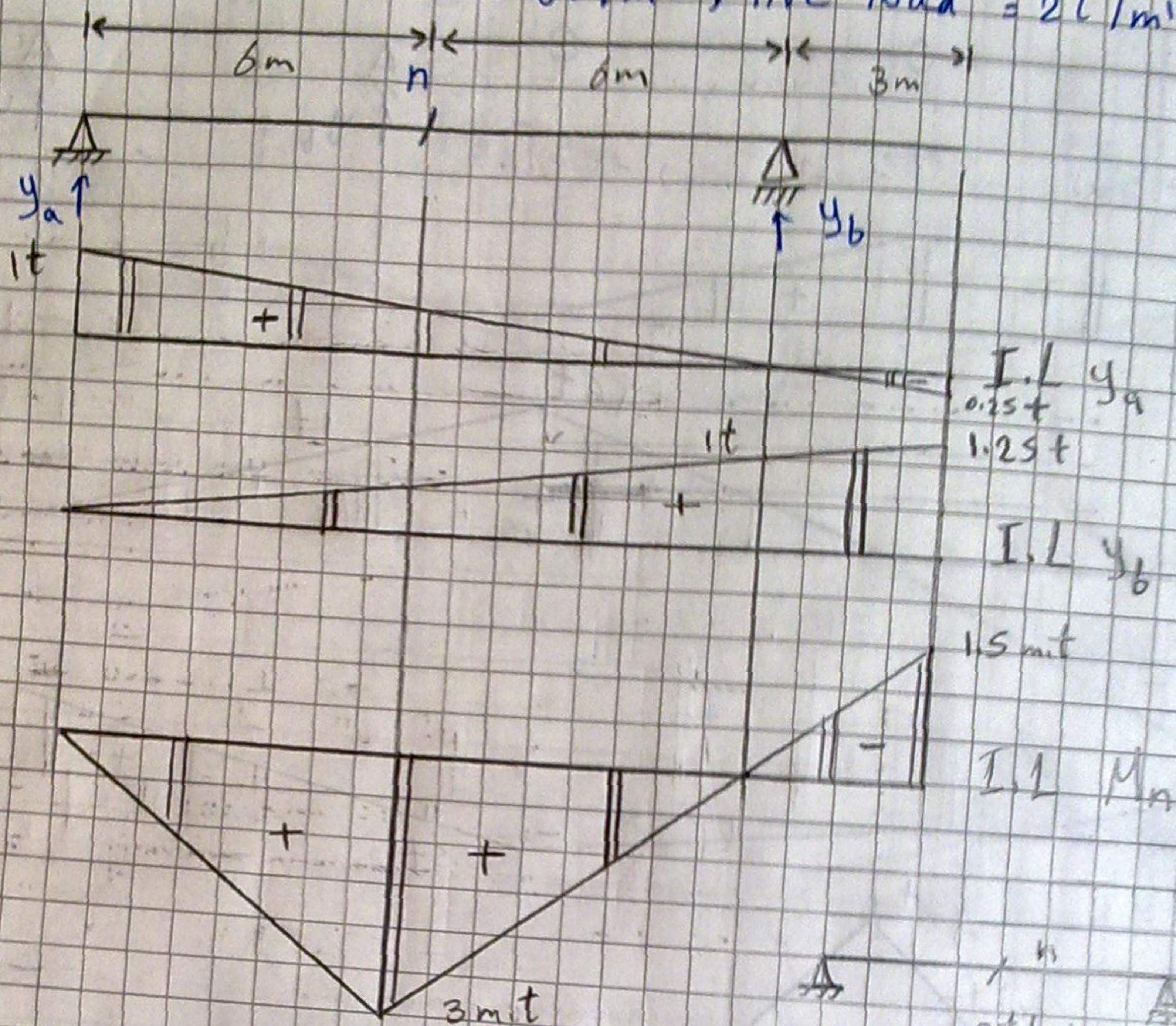




Calculate The Max & min Value of the bending moment at "n" where dead load =  $3t/m$ , live load =  $2t/m$



$$M_{n D.L.} = w_{D.L.} \times \text{Area} = 3 \left( \frac{12 \times 3}{2} - \frac{3 \times 1.5}{2} \right) = 47.25 \text{ m.t}$$

$$M_{n L.L. +ve} = w_{L.L.} \times \text{Area} +ve = 2 \left( \frac{12 \times 3}{2} \right) = 36 \text{ m.t}$$

$$M_{n L.L. -ve} = w_{L.L.} \times \text{Area} -ve = 2 \left( \frac{-3 \times 1.5}{2} \right) = -4.5 \text{ m.t}$$

$$M_{n max} = M_{n D.L.} + M_{n L.L. +ve} = 47.25 + 36 = 83.25 \text{ m.t}$$

$$M_{n min} = M_{n D.L.} + M_{n L.L. -ve} = 47.25 - 4.5 = 42.75 \text{ m.t}$$