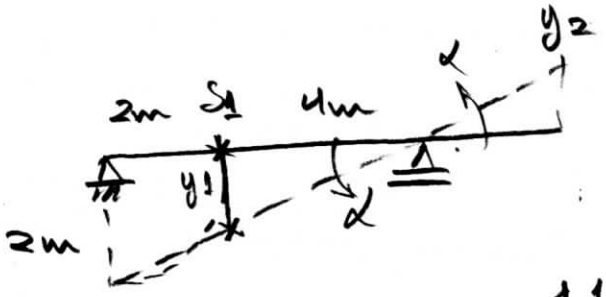
TE2-1.3

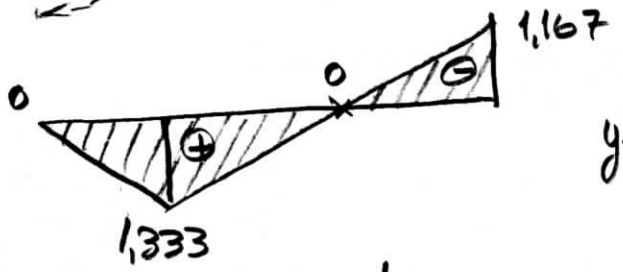
- SEÇÃO S1:



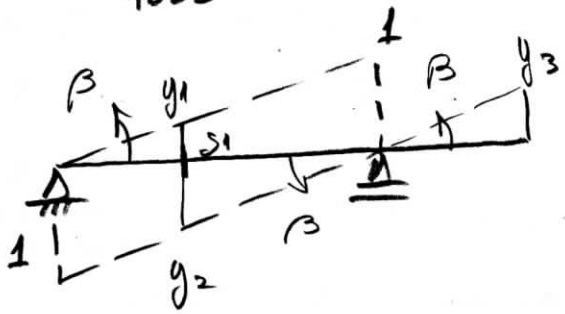
$\alpha = 2/6 = 1/3$

$y_1 = \alpha \times 4m = 4/3 = 1,333$

LI M_{S1}:



$y_2 = \alpha \times 3,5 = 3,5/3 = 1,167$



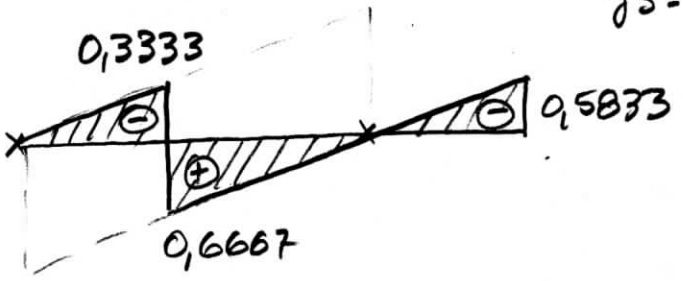
$\beta = 1/6$

$y_1 = \beta \times 2 = 2/6 = 0,3333$

$y_2 = \beta \times 4 = 4/6 = 0,6667$

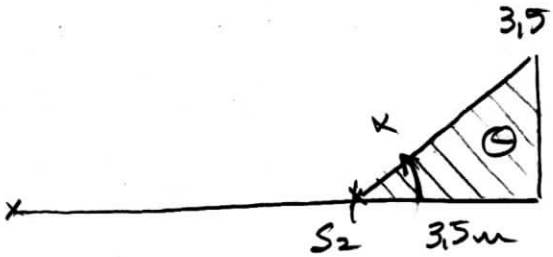
$y_3 = \beta \times 3,5 = 3,5/6 = 0,5833$

LI Q_{S1}:



- SEÇÃO S2:

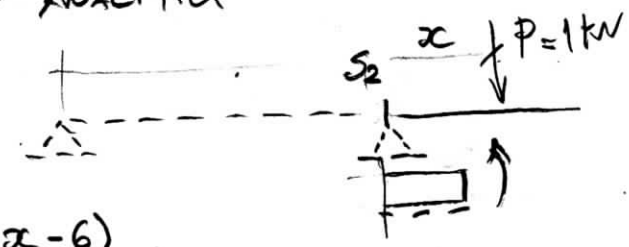
LI M_{S2}:



$\alpha = 1$

// Σ coef. angulares = 1 //

*** VERIFICAÇÃO ANALÍTICA

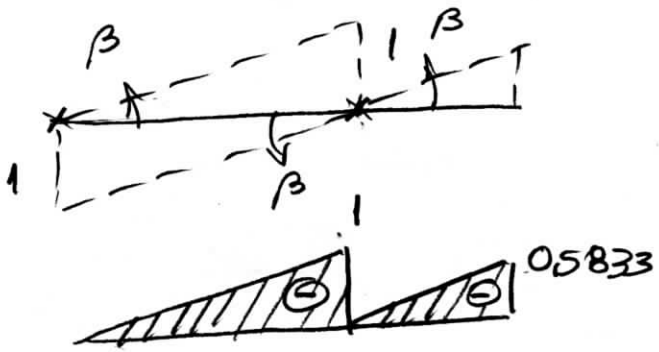


LI $M_{S_2}(P_{DIR}) : -P(x-6)$

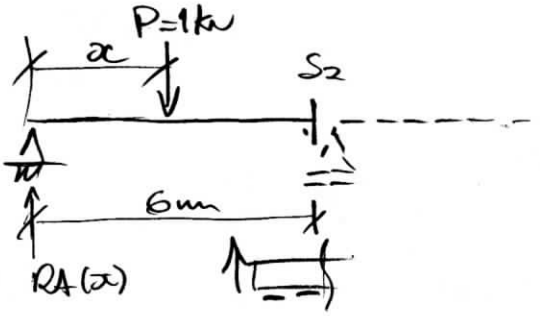
LI $M_{S_2}(P_{ESQ}) = 0$

| P/x=0 => 0
| P/x=6 => 0
| P/x=6 = -1(6-6) = 0
P/x=9,5 = -1(9,5-6) = -3,5

LI QS2:



*** VERIFICAÇÃO ANALÍTICA:



$$RA(x) = \frac{(L+a-x)}{L} = \frac{6+0-x}{6}$$

$$RA(x) = \frac{6-x}{6} = 1 - \frac{1}{6}x$$ //

$$LI\ Q_{S2}\ (P_{ESQ}) = RA(x) - P = 1 - \frac{1}{6}x - 1 = -\frac{1}{6}x$$ //

$$LI\ Q_{S2}\ (P_{DIR}) = RA(x) = 1 - \frac{1}{6}x$$ //

P/ $x = 0 \Rightarrow -\frac{1}{6} \cdot 0 = 0$

(ESQ) P/ $x = 6 \Rightarrow -\frac{1}{6} \times 6 = -1$

(DIR) P/ $x = 6 \Rightarrow 1 - \frac{1}{6} \times 6 = 0$

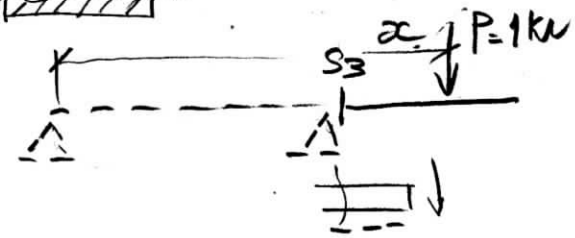
P/ $x = 9,5 \Rightarrow 1 - \frac{1}{6} \times 9,5 = -0,5833$

• SECÇÃO 3 $\boxed{LI\ M_{S3} = LI\ M_{S2}}$ //

LI Q_{S3}:



*** VERIFICAÇÃO ANALÍTICA



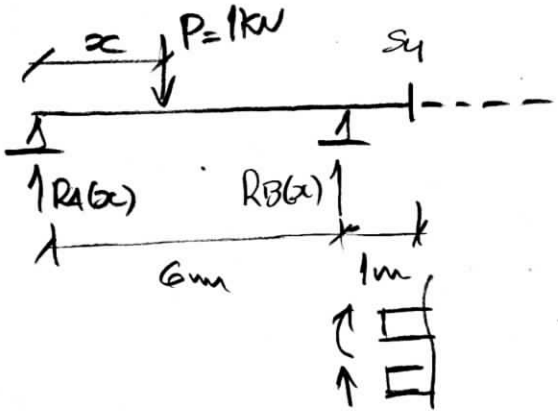
$LI\ Q_{S3}\ (P_{ESQ}) = 0$

$LI\ Q_{S3}\ (P_{DIR}) = 1$

- **Secção S4:**

ANALITICAMENTE:

- LI M_{S4}



$R_A(x) = 1 - 1/6\,x$

$R_B(x) = (x-a)/L = (x-0)/6 = x/6$

- LI M_{S4} (Pesq) $= R_A(x)\times 7 + R_B(x)\times 1 - P\times(7-x)$

$= (1-1/6\,x)\times 7 + x/6\times 1 - 1(7-x)$

$= 7 - 7/6\,x + x/6 - 7 + x$

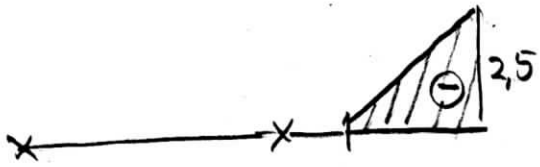
$= -7/6\,x + 7/6\,x = 0$ //

- LI M_{S4} (Poir) $= R_A(x)\times 7 + R_B(x)\times 1$

$= (1-1/6\,x)\,7 + x/6\times 1$

$= 7 - 7/6\,x + x/6$

$= 7 - x$ //



- LI Q_{S4} (Pesq) $= R_A(x) + R_B(x) - P$

$= (1-1/6\,x) + x/6 - 1$

$= 1 - 1/6\,x + 1/6\,x - 1 = 0$ //

- LI Q_{S4} (Poir) $= R_A(x) + R_B(x)$

$= (1-1/6\,x) + x/6$

$= 1$

