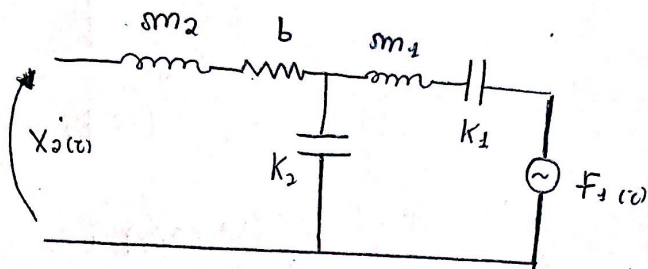
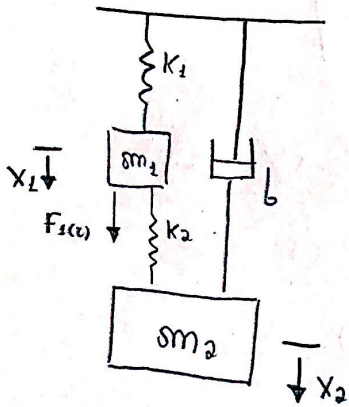


# Modelagem

Cássia Mura Kami 10773798

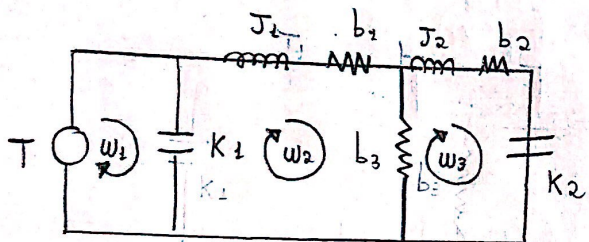
2)



$$F_1 = \frac{K_2}{D} \cdot (V_1 - V_2) + \left( sm_1 D + \frac{K_1}{D} \right) V_1$$

$$X_2 = \frac{K_2}{D} \cdot (V_2 - V_1) + (sm_2 D + b) V_2$$

3)



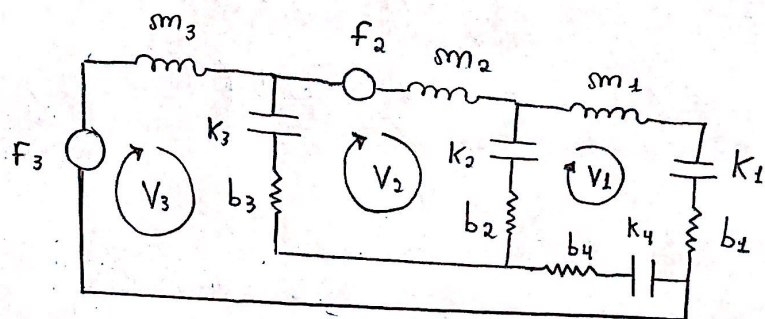
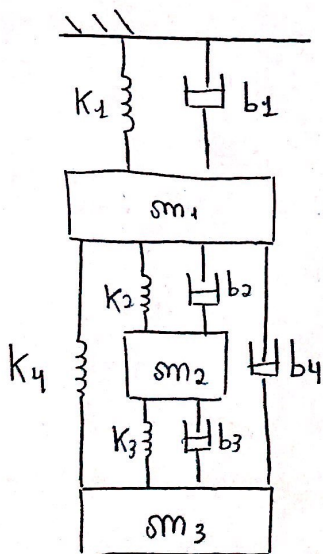
Malha 1:  $T = \frac{K_1}{D} (w_1 - w_2)$

Malha 2:  $(J_1 D + b_1) w_2 + b_3 (w_2 - w_3) + \frac{K_2}{D} (w_2 - w_1) = 0$

Malha 3:  $(J_2 D + b_2 + \frac{K_2}{D}) w_3 + b_3 (w_3 - w_2) = 0$

Lista - Josefa de Casa

3)

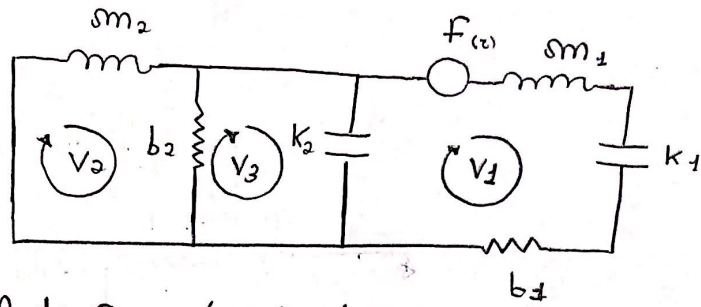
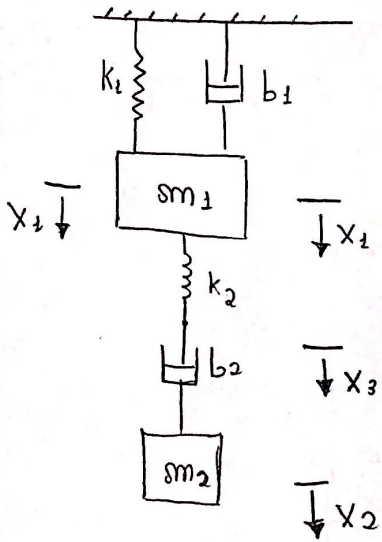


Malha 1:  $\left( sm_1 D + b_1 + \frac{K_1}{D} \right) V_1 + \left( b_2 + \frac{K_2}{D} \right) (V_1 - V_2) + \left( b_4 + \frac{K_4}{D} \right) (V_1 - V_3) = 0$

Malha 2:  $f_2 = sm_2 D V_2 + \left( \frac{K_2}{D} + b_2 \right) (V_2 - V_1) + \left( \frac{K_3}{D} + b_3 \right) (V_2 - V_3)$

Malha 3:  $F_3 = sm_3 D V_3 + \left( \frac{K_3}{D} + b_3 \right) (V_3 - V_2) + \left( \frac{K_4}{D} + b_4 \right) (V_3 - V_1)$

6)

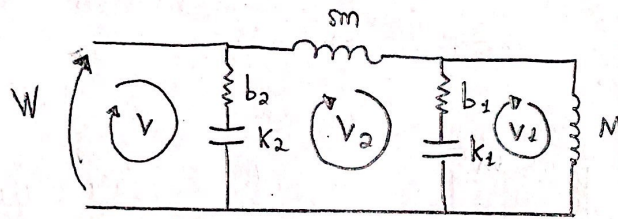
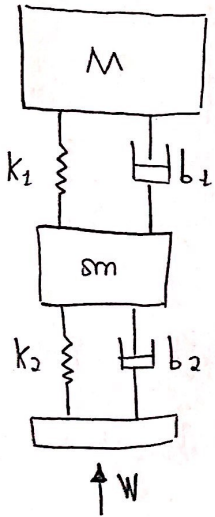


Malha 1:  $f(t) = (sm_1 D + b_1 + \frac{k_1}{D}) V_1 + \frac{k_2}{D} (V_1 - V_3)$

Malha 3:  $\frac{k_2}{D} (V_3 - V_1) + b_2 (V_3 - V_2) = 0$

Malha 2:  $sm_2 D V_2 + b_2 (V_2 - V_1) = 0$

8)



a)

$$M D V_1 + (b_1 + \frac{k_1}{D}) (V_1 - V_2) = 0$$

$$sm D V_2 + (b_1 + \frac{k_1}{D}) (V_2 - V_1) + (\frac{k_2}{D} + b_2) (V_2 - V) = 0$$

b)

$$\textcircled{1} M D V_1 + (b_1 + \frac{k_1}{D}) (V_1 - V_2) = 0$$

$$\textcircled{2} sm D V_2 + (b_1 + \frac{k_1}{D}) (V_2 - V_1) + (\frac{k_2}{D} + b_2) (V_2 - V) = 0$$

$$\textcircled{3} (b_2 + \frac{k_2}{D}) (V - V_2) = W(t)$$