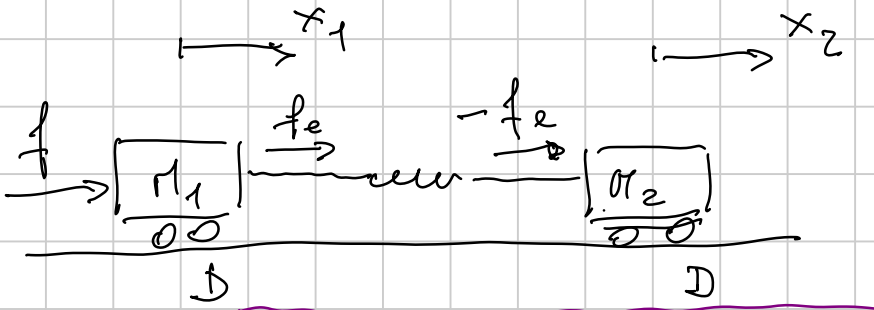
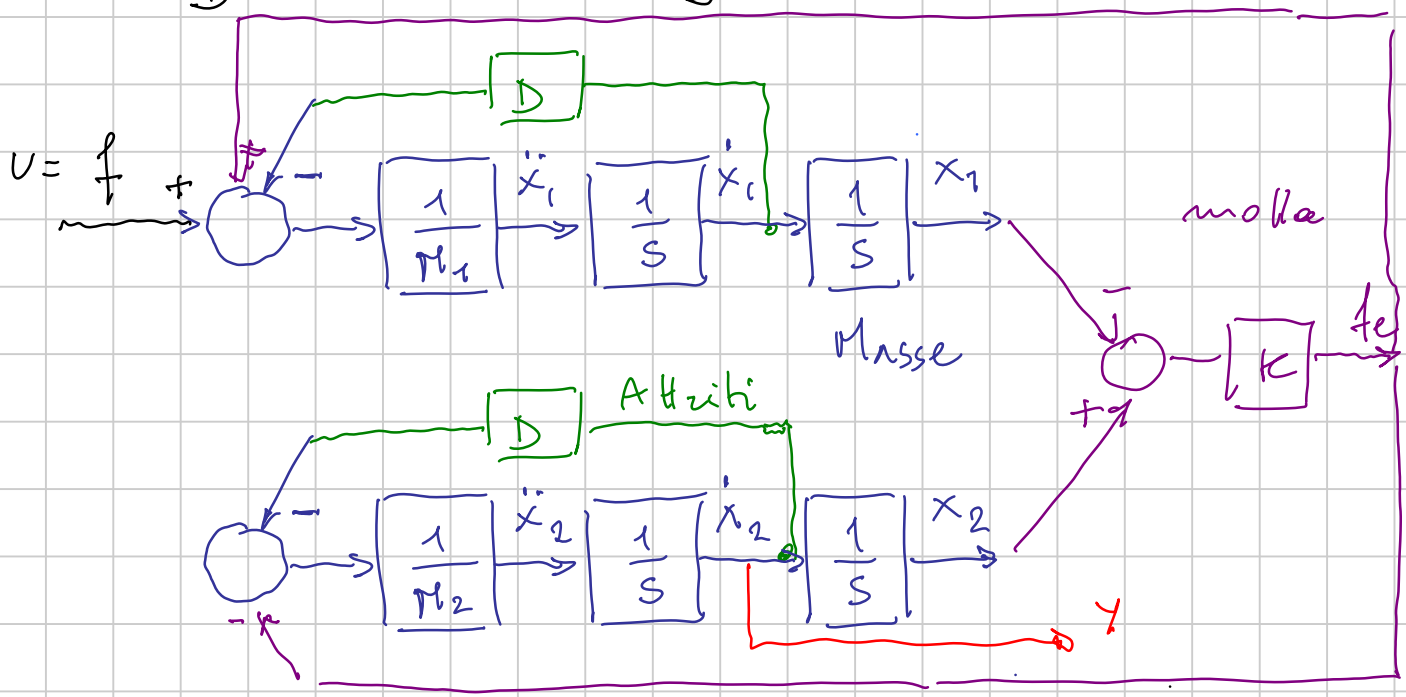
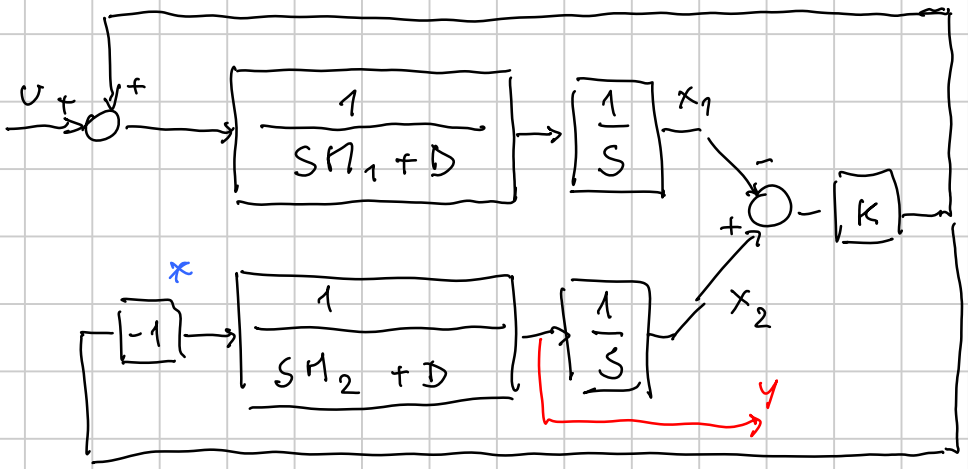


Determinare lo schema a blocchi e la fdt tra

$u = f$ e $y = \dot{x}_2$

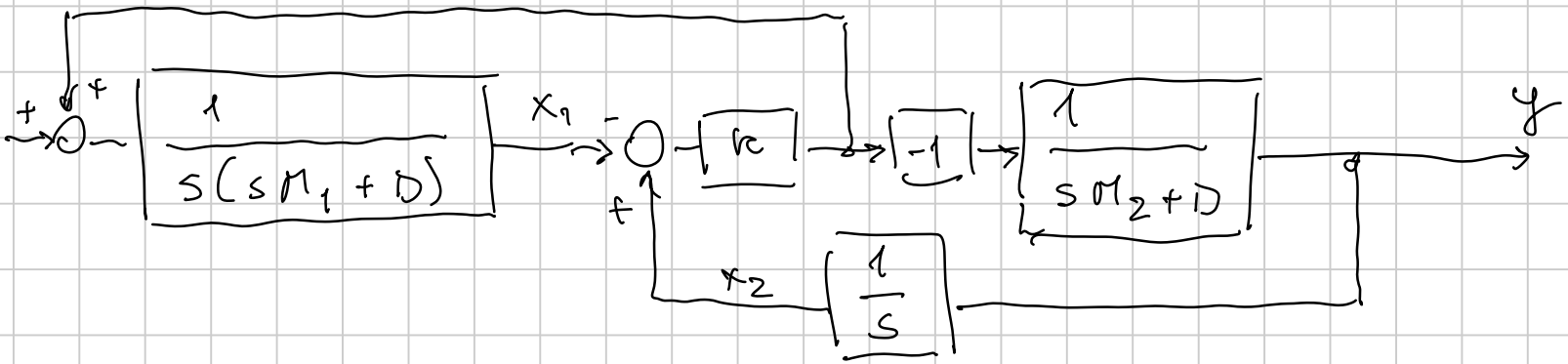


$$\frac{1}{(sM_1 + D)s}$$

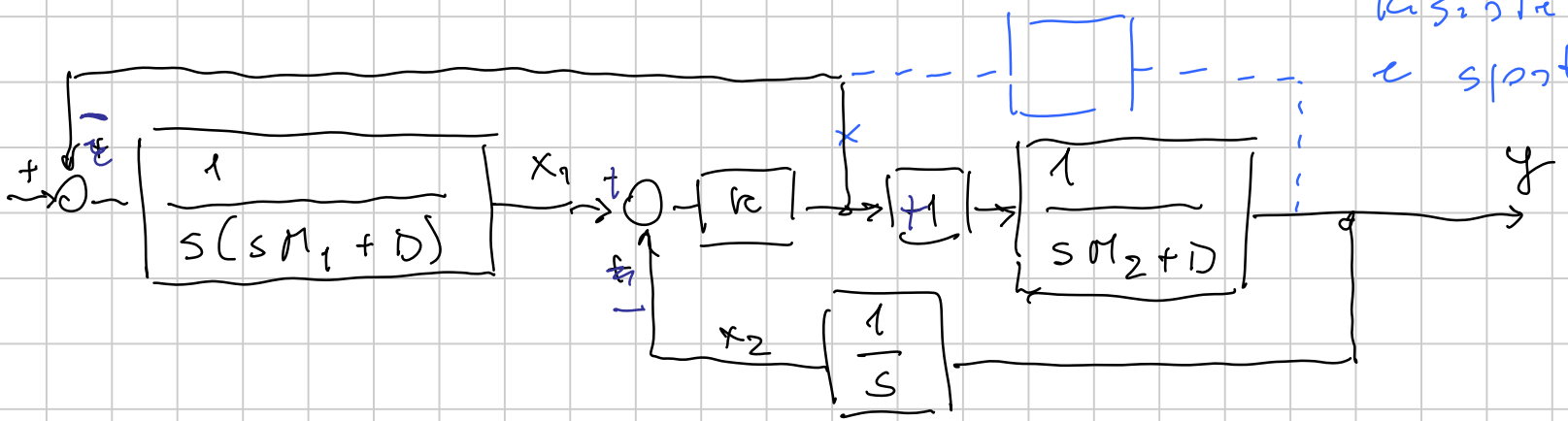


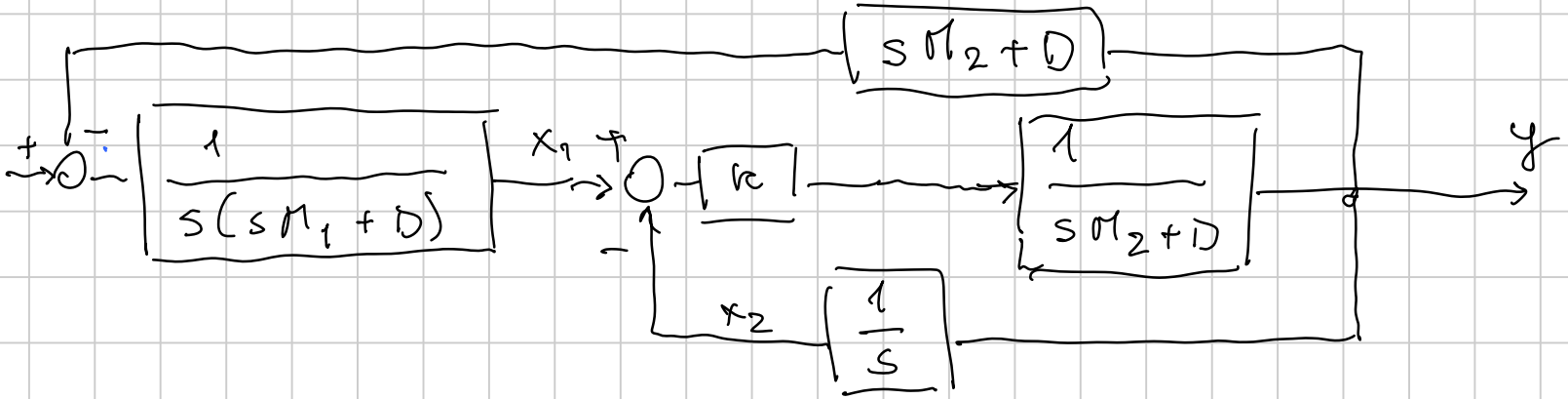
* il nodo di somma non serve finché rimane il segno —

Ridisegnando e evidenziando la catena diretta

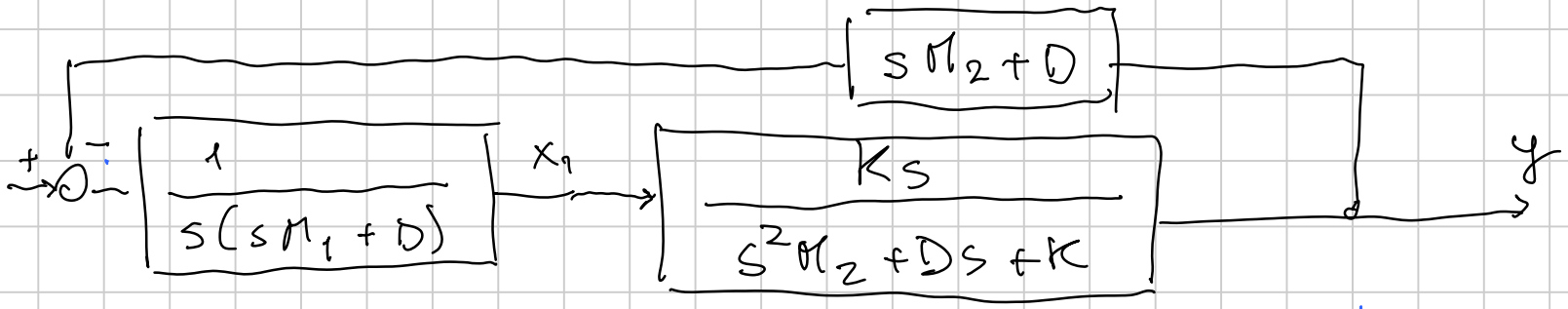


Ristrutturiamo i segni e spostiamo una linea





Sciogliamo l'anello interno



e finalmente quello esterno

$$\frac{V_2(s)}{F(s)} = \frac{Ks}{(s^2M_1+sD)(s^2M_2+sD+K)+sK(sM_2+D)} =$$

la semplificazione elimina la s a numeratore

$$= \frac{K}{s^3M_1M_2 + s^2D(M_1+M_2) + s\left[K(M_1+M_2)+D^2\right] + 2DK}$$