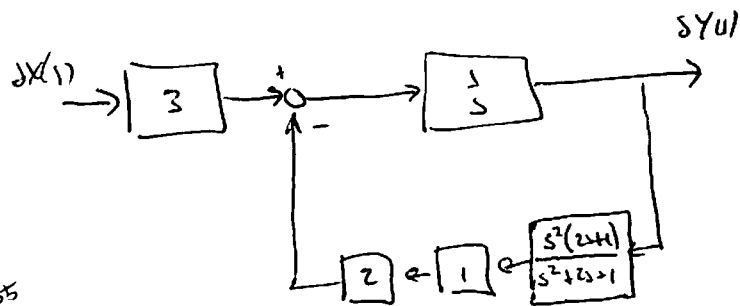


$$Z_T = \frac{1}{2s+1} + \frac{1}{\frac{1}{s^2}} = \frac{s^2 + 2s + 1}{s^2(2s+1)} = \frac{\delta Y(s)}{\delta F(s)} = N(s)$$



$$\begin{aligned} \frac{\delta Y(s)}{\delta X(s)} &= 3 \cdot \frac{\frac{1}{s}}{1 + \frac{2s^2(2s+1)}{(s^2+2s+1)s}} \\ &= 3 \frac{s^2+2s+1}{4s^3+2s^2+s^3+2s^2+s} \\ &= \frac{3s^2+6s+3}{5s^3+4s^2+s} \end{aligned}$$