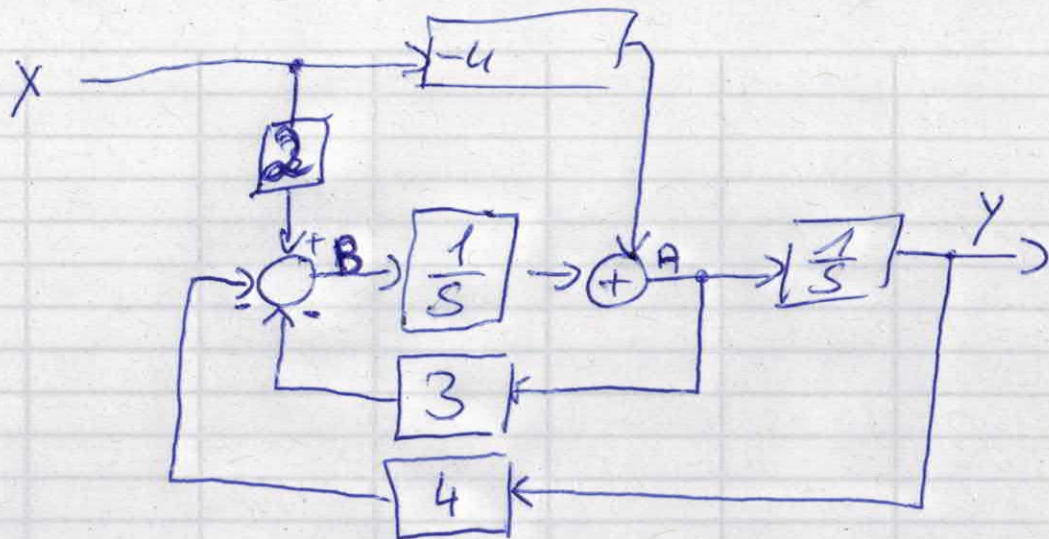


$$I \quad Y = A \frac{1}{s}$$

$$II \quad A = -4X + B \frac{1}{s}$$

$$III \quad B = 2X - 4Y - 3A$$



$$III \text{ in } II \quad A = -4X + \frac{1}{s}(2X - 4Y - 3A)$$

$$A = -4X + \frac{2X}{s} - 4Y \frac{1}{s} - 3A \frac{1}{s}$$

$$A \left(1 + 3 \frac{1}{s}\right) = -4X + \frac{2X}{s} - \frac{4Y}{s}$$

$$IV \quad A = \frac{-4X + \frac{2X}{s} - \frac{4Y}{s}}{1 + 3 \frac{1}{s}}$$

$$IV \text{ in } I \quad Y = \frac{-4X + \frac{2X}{s} - \frac{4Y}{s}}{1 + 3 \frac{1}{s}} \xrightarrow{\text{multiplizieren}} \frac{1}{s} \frac{-4Xs + 2X - 4Y}{s^2 + 3s} = \frac{-4Xs + 2X - 4Y}{s^2 + 3s} \xrightarrow{\text{Erweitern}} \frac{-4Xs + 2X}{s^2 + 3s} - \frac{4Y}{s^2 + 3s}$$

$$Y \left(1 + \frac{3}{s}\right) = \frac{-4Xs + 2X}{s^2 + 3s} \quad (\Rightarrow) \quad Y = \frac{-4Xs + 2X}{s^2 + 3s} = \frac{-4Xs + 2X}{s^2 + 3s + 4}$$