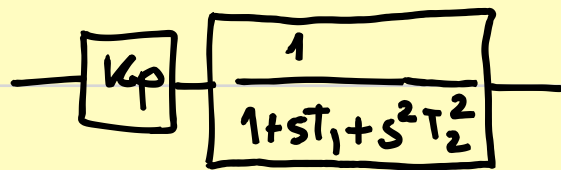


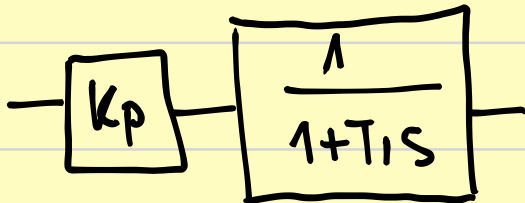
## 1. Vorlesung 2023/107

PT<sub>2</sub>-Glieder

$$\frac{1}{1+sT_1+s^2T_2^2} = \frac{A}{s+a} + \frac{B}{s+b}$$

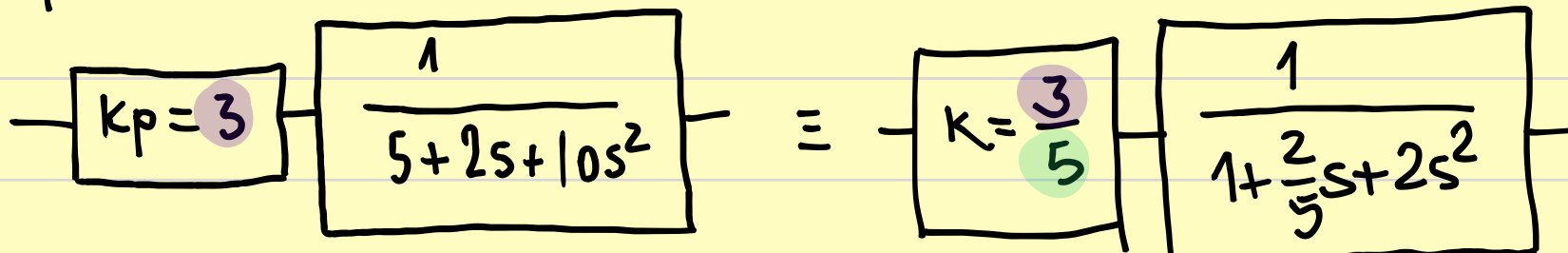
$$D = \frac{T_1}{2T_2}; \quad \omega_E = \frac{1}{T_2} \text{ s}^{-1}; \quad \bar{u} = \frac{K_p \cdot T_2}{T_1}$$

$$s_{1,2} = \frac{-T_1 \pm \sqrt{T_1^2 - 4T_2^2}}{2T_2^2} = \dots \rightarrow A, B, a, b$$

PT<sub>1</sub>-Glieder

$$\omega_E = \frac{1}{T_1} \text{ s}^{-1}$$

Beispiel für HUDA ☺



$$\frac{1}{5+2s+10s^2} = \frac{1}{5} \cdot \frac{1}{1+\frac{2}{5}s+2s^2}$$

$$D = \frac{\frac{2}{5}}{2\sqrt{2}} = \frac{\sqrt{2}}{10} \quad \omega_E = \frac{1}{\sqrt{2}} \cdot \frac{\sqrt{2}}{\sqrt{2}} = \frac{\sqrt{2}}{2}$$

$$\bar{u} = \frac{\frac{3}{5} \cdot \sqrt{2}}{\frac{2}{5}} = \frac{3\sqrt{2}}{2}$$

## 2. 2023/219 . Übung 5 .

$$x_e(t) = 1$$

