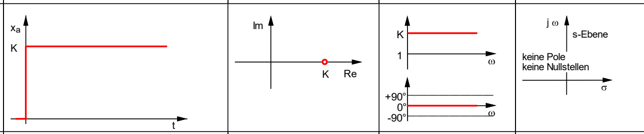
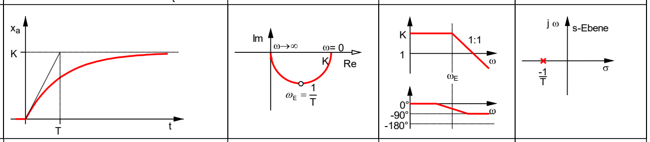
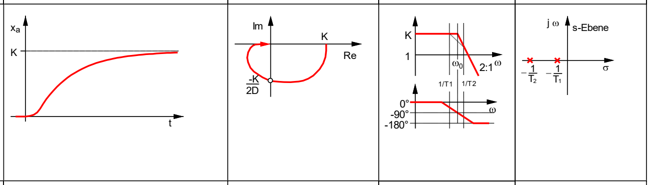
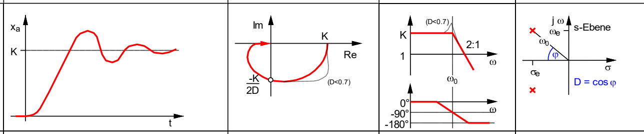
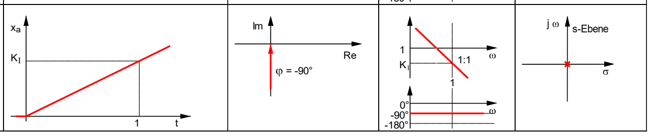
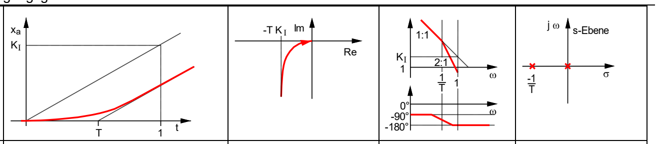
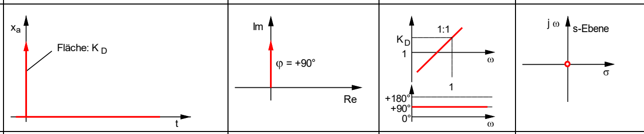
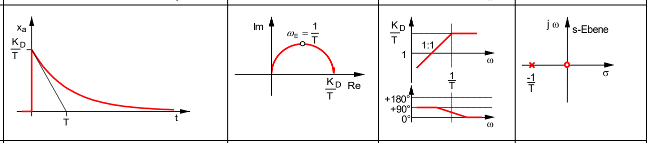
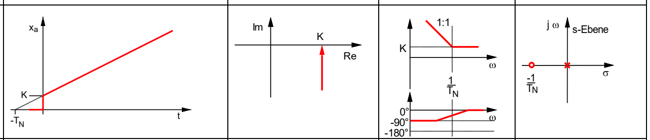
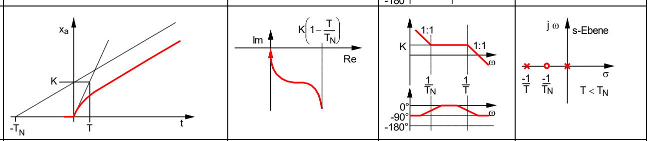
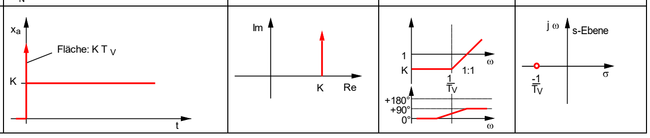
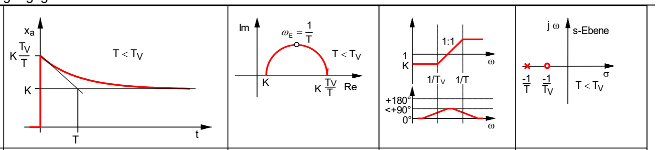
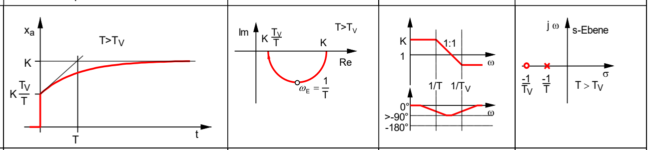
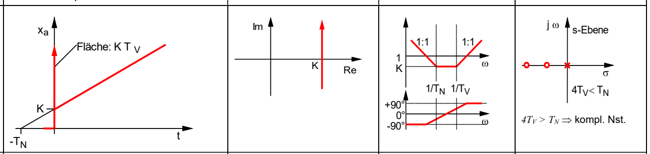
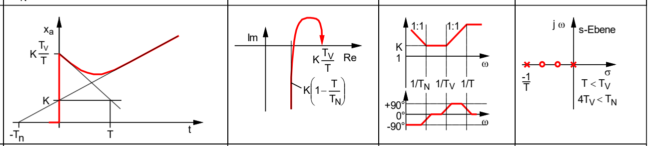
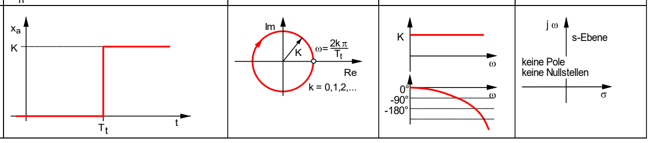
System	Differentialgleichung $x_a = x_a(t),\ x_e = x_e(t)$	Übertragungsfunktion $F(s)$	Übergangs Funktion (Sprungantwort)	Ortskurve $F(j\omega)$	Bode-Diagramm	x: Pole o: Nullstellen
P	$x_a = K\,x_e$ konstant	K				
PT_1	$T\dot{x}_a + x_a = K\,x_e$ -20db/Dek.	$\dfrac{K}{1+T\,s}$				
PT_2 $(D \geq 1)$	$\ddot{x}_a + 2D\omega_0\dot{x}_a + \omega_0^2 x_a =$ $= K\omega_0^2 x_e$ -40db/Dek.	$\dfrac{K\,\omega_0^2}{s^2+2D\omega_0 s+\omega_0^2}$ bzw. $\dfrac{K_1}{1+T_1 s}\cdot\dfrac{K_2}{1+T_2 s} = \dfrac{K_1K_2/(T_1T_2)}{s^2+\left(\frac{1}{T_1}+\frac{1}{T_2}\right)s+\frac{1}{T_1T_2}}$ $\left(K_1K_2 \to K;\ \frac{1}{T_1T_2} \to \omega_0^2;\ \frac{T_1+T_2}{2\sqrt{T_1T_2}} \to D\right)$				
PT_2 $(0 \leq D < 1)$	$\ddot{x}_a + 2D\omega_0\dot{x}_a + \omega_0^2 x_a =$ $= K\omega_0^2 x_e$	$\dfrac{K\,\omega_0^2}{s^2+2D\omega_0 s+\omega_0^2}$				
I	$x_a = K_I \int x_e\,dt$	$\dfrac{K_I}{s} = K\cdot\dfrac{1}{T_N\cdot s}$ $\left(K_I = \dfrac{K}{T_N}\right)$				

IT_1	$T\ddot{x}_a + \dot{x}_a = K_I \int x_e\,dt$	$\dfrac{K_I}{s(1+Ts)}$				
D	$x_a = K_D\dot{x}_e$ +20db/Dek.	$K_D\,s = K\cdot T_V\cdot s$ $\left(K_D = K\cdot T_V\right)$				
DT_1	$T\dot{x}_a + x_a = K_D\dot{x}_e$	$\dfrac{K_D s}{1+Ts}$				
PI	$x_a = K\left(x_e + \dfrac{1}{T_N}\int x_e\,dt\right)$ $K_I = \dfrac{K}{T_N}$	$K\left(1+\dfrac{1}{T_N\,s}\right)$				
PIT_1	$T\dot{x}_a + x_a = K\left(x_e + \dfrac{1}{T_N}\int x_e\,dt\right)$	$K\dfrac{1+\dfrac{1}{T_N s}}{1+Ts}$				
PD	$x_a = K\left(x_e + T_V\dot{x}_e\right)$ $K_D = K\,T_V$	$K\left(1+T_V s\right)$				

PDT_1 Lead-Glied $(T<T_V)$	$T\dot{x}_a + x_a = K\left(x_e + T_V\dot{x}_e\right)$	$K\dfrac{1+T_V s}{1+Ts}$				
PDT_1 Lag-Glied $(T>T_V)$	$T\dot{x}_a + x_a = K\left(x_e + T_V\dot{x}_e\right)$	$K\dfrac{1+T_V s}{1+Ts}$				
PID	$x_a = K\left(x_e + \dfrac{1}{T_N}\int x_e\,dt + T_V\dot{x}_e\right)$	$K\left(1+\dfrac{1}{T_N\,s}+T_V s\right)$ bzw. $K_P + K_I\dfrac{1}{s} + K_D\,s$				
$PIDT_1$	$T\dot{x}_a + x_a = K\left(x_e + \dfrac{1}{T_N}\int x_e\,dt + T_V\dot{x}_e\right)$	$K\dfrac{1+\dfrac{1}{T_N\,s}+T_V s}{1+Ts}$				
T_t	$x_a = K\cdot x_e(t-T_t)$	$K\cdot e^{-T_t s}$				

Anm.: *Strecken „ohne Ausgleich“ besitzen integrierendes Verhalten. Strecken „mit Ausgleich“ streben bei konstantem Eingangssignal einem konstanten Ausgangswert zu.*