

$$T_m = AA \cdot \frac{dv}{dt} + BB \cdot (CC + DD \cdot v^2)$$

$$Tm(\omega) := EE \cdot \omega^3 + FF \cdot \omega^2 + GG \cdot \omega + HH$$

$$\frac{d}{dt} v(t) = ? \frac{(EE \cdot \omega^3 + FF \cdot \omega^2 + GG \cdot \omega + HH) - BB \cdot (CC + DD \cdot v(t)^2)}{AA}$$

$$FF := 2 \cdot AA \cdot \frac{d}{dt} v(t) + BB \cdot (CC + DD \cdot v(t)^2) = EE \cdot \omega^3 + FF \cdot \omega^2 + GG \cdot \omega + HH$$

$$\frac{d}{dt} v(t) = \frac{(EE \cdot \omega^3 + FF \cdot \omega^2 + GG \cdot \omega + HH) - BB \cdot (CC + DD \cdot v(t)^2)}{AA}$$

$$EE := 0 \quad FF := 0 \quad GG := 10^{-1} \quad HH := 0 \quad BB := 1 \quad CC := 0 \quad DD := 10^{-3} \quad AA := 1$$

$$\omega := 500$$

Ограничения
Решатель

$$v(0) = 0$$

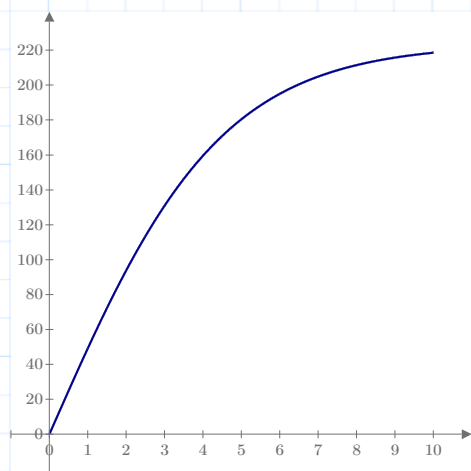
$$\frac{d}{dt} v(t) = \frac{(EE \cdot \omega^3 + FF \cdot \omega^2 + GG \cdot \omega + HH) - BB \cdot (CC + DD \cdot v(t)^2)}{AA}$$

$$V := \text{odesolve}(v(t), 10, 1000)$$

$$V(0) = 0$$

$$V(0.001) = 0.05$$

$$tt := 0, 0.001..10$$



$V(tt)$

tt