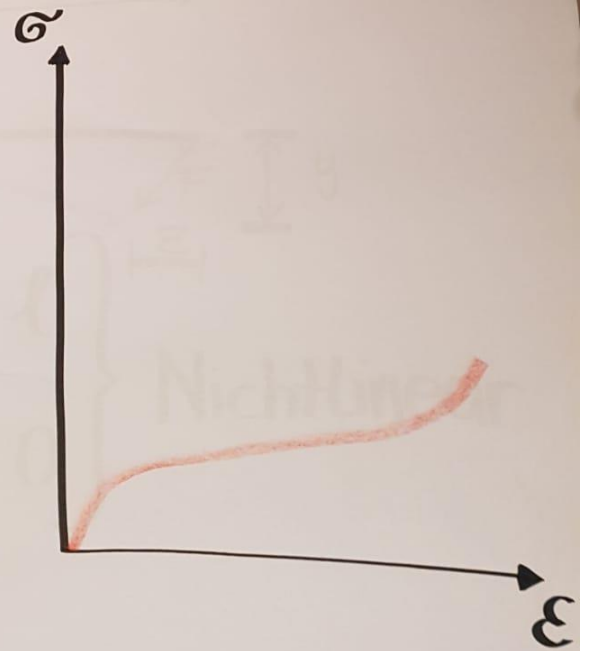
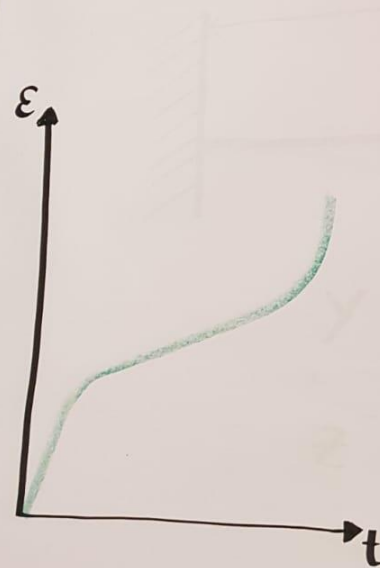
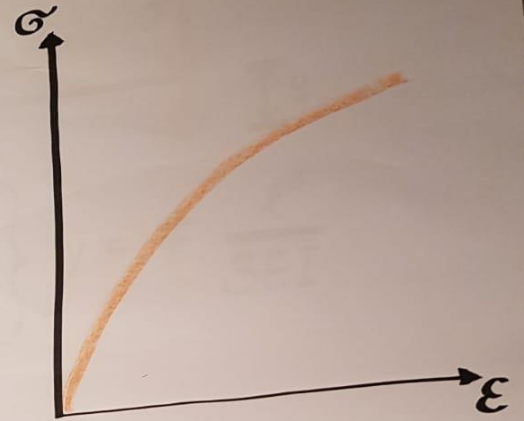
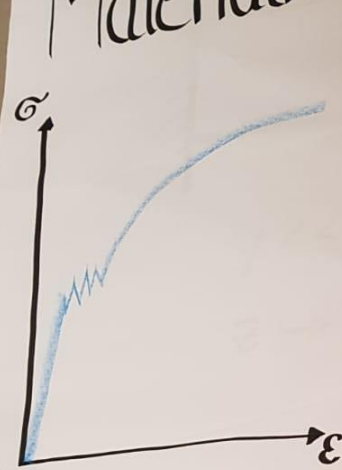
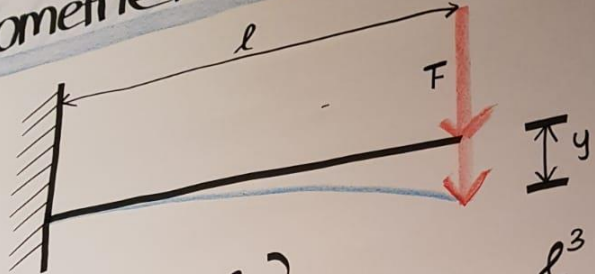


Nichtlineare Berechnungsmethoden

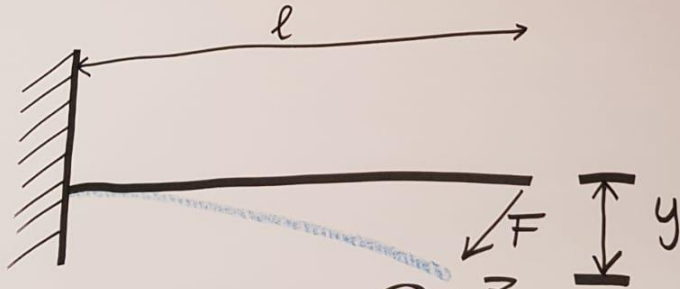
Materialnichtlinearität



Geometrie nichtlinearität

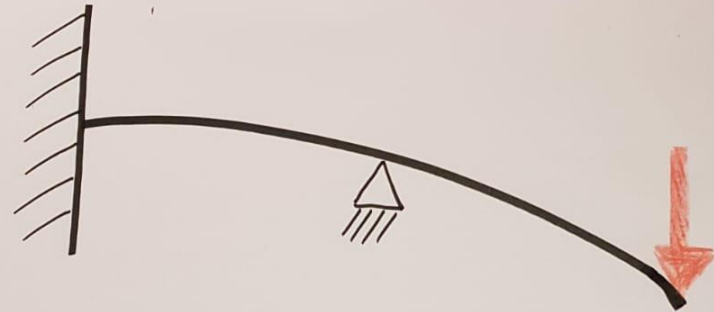
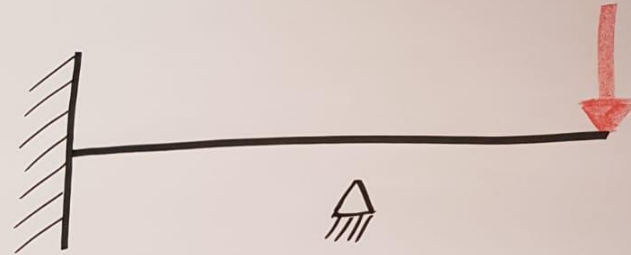


$$\left. \begin{array}{l} y \ll l \\ z \rightarrow 0 \end{array} \right\} y = F \frac{l^3}{3EI}$$



$$\left. \begin{array}{l} y < l \\ z \neq 0 \end{array} \right\} \text{Nichtlinear}$$

Kontakt nichtlinearität



Zahnradgetriebe



1, Max. Zahngrundspannung:

$$\sigma_{zg} \leq 300 \text{ MPa}$$

2, Max. Kontaktdruck beim Anfahren:

$$P_{\text{contact}} \leq 900 \text{ MPa}$$

O-Ring - Montage

1 Dichtheitsnachweis



$$P_{\text{contact}} \geq 20 \text{ bar}$$

2 keine Quetschung

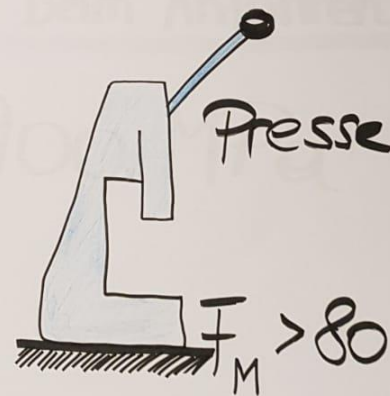


$$\leq 12 \text{ MPa}$$

3 Montage Hand



$$F_M \leq 80 \text{ N}$$



$$F_M > 80 \text{ N}$$

Drop Test

$$\sigma_{VM} \leq 60 \text{ MPa}$$



Platinendurchbiegung: max. 5mm