

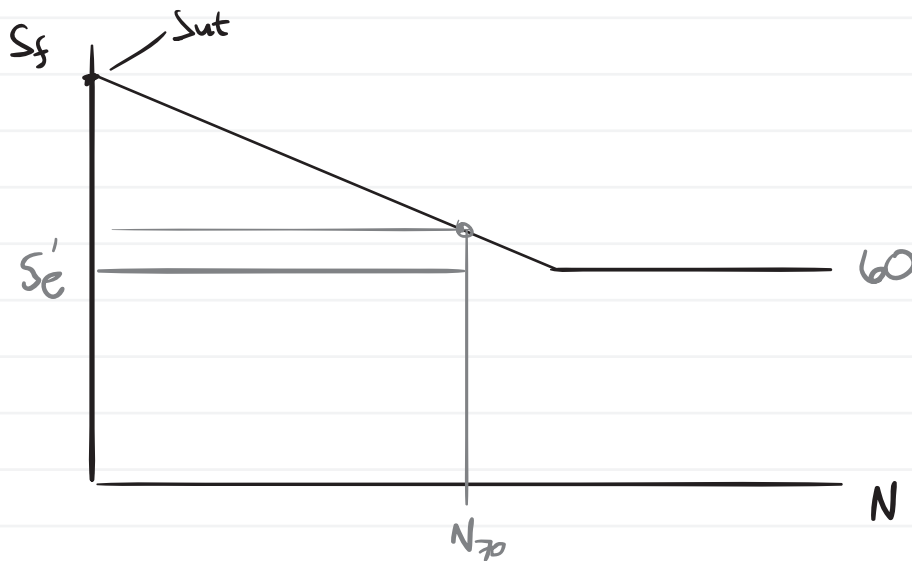
6-3

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$$\begin{aligned}\sigma_{rev} &= 70 \text{ kpsi} \\ S_{ut} &= 120 \text{ kpsi}\end{aligned}$$

$$N = ?$$

$$S_e' = 0.5 S_{ut} = 0.5 (120) = 60 \text{ kpsi}$$



$$6-16: \quad N_{70} = \left(\frac{\sigma_{rev}}{a} \right)^{1/b} \quad S = 0.82$$

$$a = \frac{(f S_{ut})^2}{S_e} = 161.376$$

$$b = -\frac{1}{3} \log \left(\frac{f S_{ut}}{S_e} \right) = -0.0716$$

$$N_{70} = \underline{\underline{1.16 \cdot 10^5}}$$