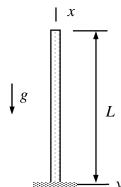
Assignment 2 (2p)

The bar of the figure is loaded by its own weight. Cross-sectional area A and density ρ of the material are constants. Use the bar model boundary value problem



$$\frac{dN}{dx} + b = 0$$
 and $N = EA \frac{du}{dx}$ in Ω ,

$$nN - F = 0$$
 or $u - \underline{u} = 0$ on $\partial \Omega$.

to determine the stress N and displacement u.