8-11. A steel rod *BC* with $d = 70\,\text{mm}$ is used as a strongback. A force $F \sim N\left(60, 6^2\right)\text{kN}$ is used to slowly lift the weight as shown in the figure. If the modulus of elasticity follows $E \sim N\left(200, 20^2\right)\text{GPa}$. Determine the probability of buckling. Assume that E and F are independent. (**Ans.** $p_f = 5.7672\times10^{-5}$)