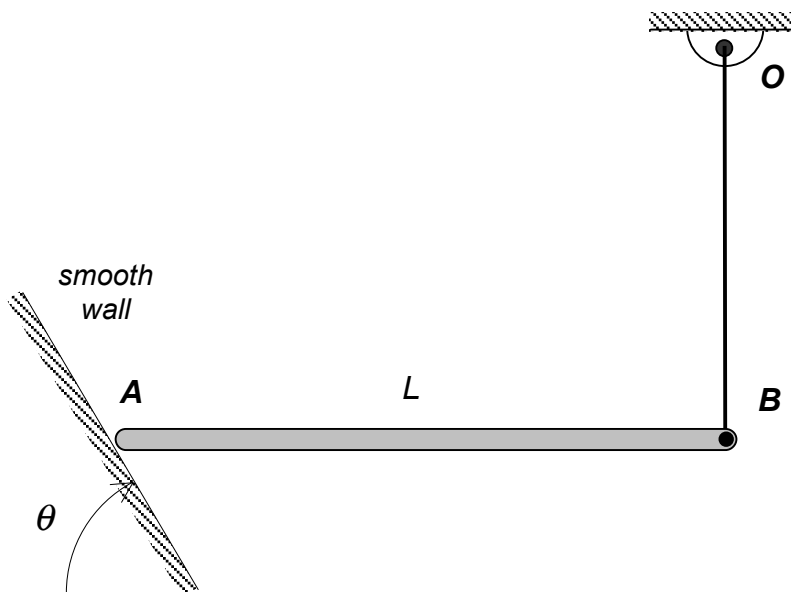**Homework H5.C**

Given: The homogeneous thin bar AB shown below has a mass of M and a length of L. The bar is supported by lightweight, inextensible cable BO at end B and by a smooth, inclined wall at end A. The bar is released from rest with the bar in a horizontal orientation and with cable BO being vertical.

Find: Determine the tension in cable BO immediately after the bar is released.

Use the following parameters in your analysis: $M = 100$ kg, $L = 3$ m and $\theta = 53.13°$.