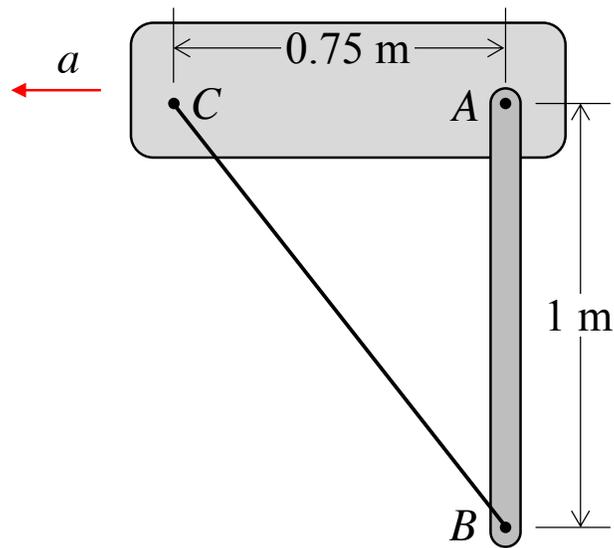


Homework H.5.B

Given: Homogeneous bar AB of mass m is supported by a base AC that is translating to the left with a constant acceleration of a . Cable BC restrains the rotation of the bar as it translates to the left.

Find:

- Determine the tension in the cable; and
- Determine the reaction force acting on bar AB at A .



Use the following parameters in your analysis: $m = 3 \text{ kg}$ and $a = 7 \text{ m/s}^2$.