

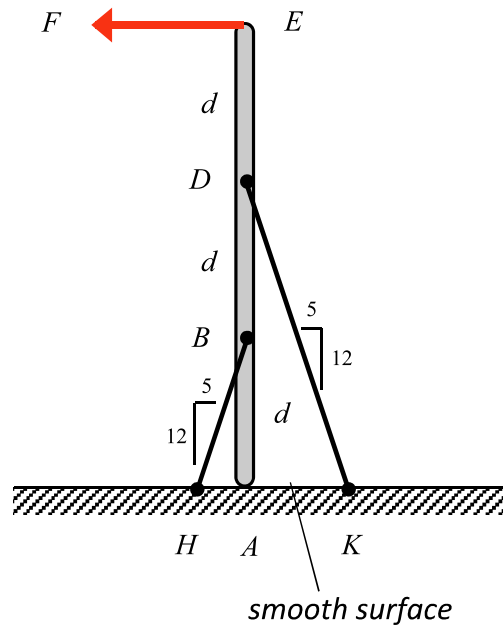
**Homework H8.A**

**Given:** A thin, homogeneous bar AE of length  $3d$  is supported by a smooth, horizontal floor at end A, in addition to cables BH and DK, as shown in the figure. A horizontal force  $F$  is applied to end E. Consider the weight of the bar to be negligible as compared to the applied force  $F$ .

**Find:** With the bar being in static equilibrium:

- a) Determine the tension in cables BH and DK.
- b) Determine the contact force on the bar at end A.

Leave your answers in terms of, at most,  $F$  and  $d$ .



**Homework H8.B**

**Given:** A street light is acted upon by a pair of horizontal forces at B and D, and by its weight at the center of mass G. Consider the connection of the light at A to be fixed to the ground.

**Find:** Determine the reactions on the street light at support A. Express your answers as vectors in terms of, at most,  $W$  and  $d$ .

