

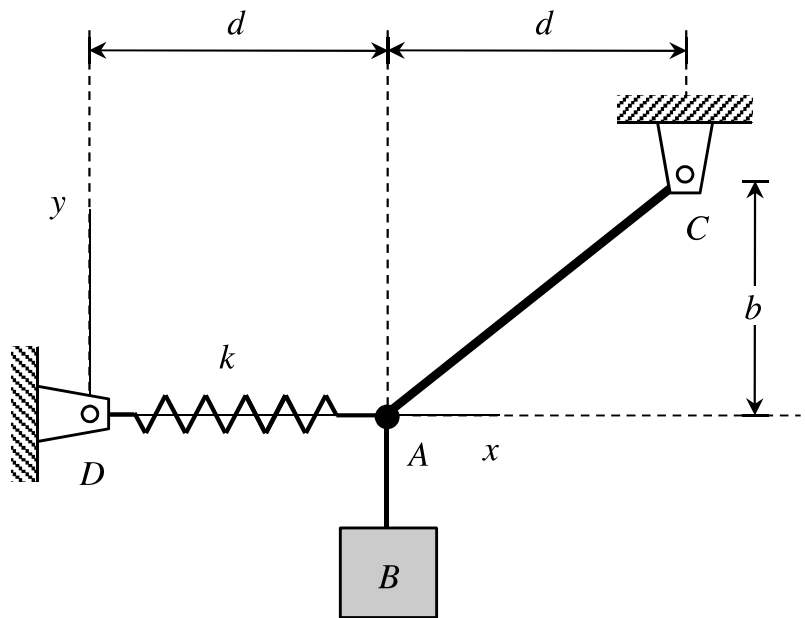
Homework H4.A

Given: Block B has a weight of W_B . The spring has a stiffness of k and a free length of L_0 .

Find:

- Determine the tension in cable AC.
- Determine the distance b .

Use the following parameter values in your analysis: $W_B = 45 \text{ lb}$, $k = 80 \text{ lb/ft}$, $L_0 = 15 \text{ in}$ and $d = 21 \text{ in}$.



Homework H4.B

Given: Block B has a weight of W_B and a horizontal force F is applied at point E.

Find:

- Determine the tension in cable EF.
- Determine the tension in cable ED.
- Determine the tension in cable CD and the angle α .

Use the following parameters in your analysis: $W_B = 120$ lb, $F = 100$ lb and $\beta = 75^\circ$.

