

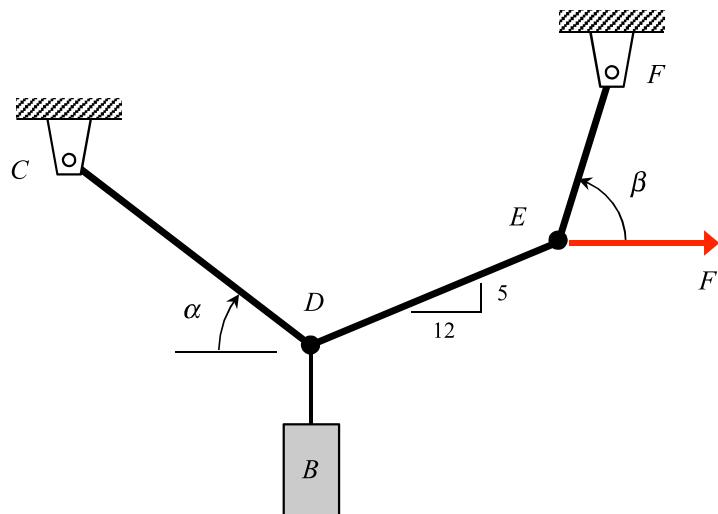
Homework H4.A

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: $W_B = 120 \text{ lb}$, $F = 100 \text{ lb}$ and $\beta = 75^\circ$.



Homework H4.B

Given: Blocks A and B are at rest on a pair of smooth guides, as shown in the figure, where m_A and m_B are the masses for A and B, respectively. A horizontal cable connects the two blocks.

Find: Determine the mass ratio m_A/m_B required for equilibrium.

Use the following parameters in your analysis: $\phi = 70^\circ$ and $\alpha = 30^\circ$.

