

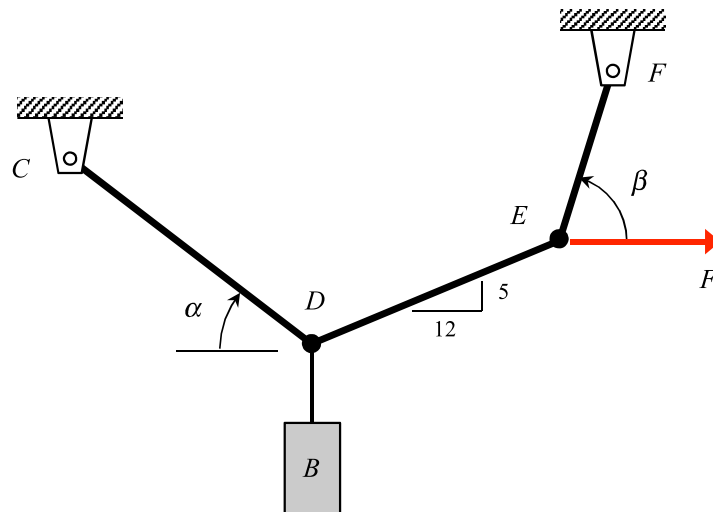
Homework H4.A

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: $W_B = 240$ lb, $F = 130$ lb and $\beta = 60^\circ$.



Homework H4.B

Given: A sphere, having a mass of W , is supported by two smooth, inclined surfaces. A horizontal force F acts at the center of the sphere, as shown.

Find: Determine the reaction forces acting on the sphere at A and B due to the inclined surfaces. Express your answers in terms of W and F . Write your answers as vectors in terms of the xy -coordinates provided.

