Homework H4.A

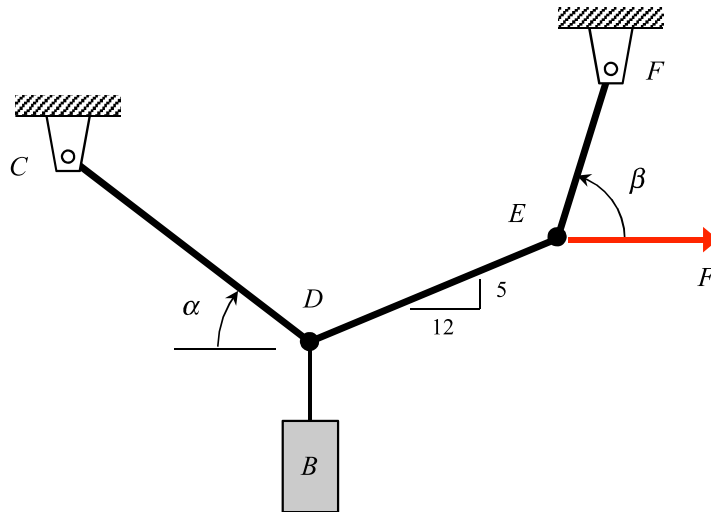***Given***: Block B has a weight of W_B and a horizontal force F is applied at point E.

Find:
   a) Determine the tension in cable EF.
   b) Determine the tension in cable ED.
   c) 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 β = 60°.

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.