PROBLEM 2.70

An 1800-N load \( Q \) is applied to the pulley \( C \), which can roll on the cable \( ACB \). The pulley is held in the position shown by a second cable \( CAD \), which passes over the pulley \( A \) and supports a load \( P \). Determine \((a)\) the tension in cable \( ACB \), \((b)\) the magnitude of load \( P \).

PROBLEM 2.75

Cable \( AB \) is 65 ft long, and the tension in that cable is 3900 lb. Determine \((a)\) the \( x \), \( y \), and \( z \) components of the force exerted by the cable on the anchor \( B \), \((b)\) the angles \( \theta_x \), \( \theta_y \), and \( \theta_z \) defining the direction of that force.

PROBLEM 2.90

For the frame and cable of Problem 2.89, determine the components of the force exerted by the cable on the support at \( E \).

PROBLEM 2.89 A frame \( ABC \) is supported in part by cable \( DBE \) that passes through a frictionless ring at \( B \). Knowing that the tension in the cable is 385 N, determine the components of the force exerted by the cable on the support at \( D \).