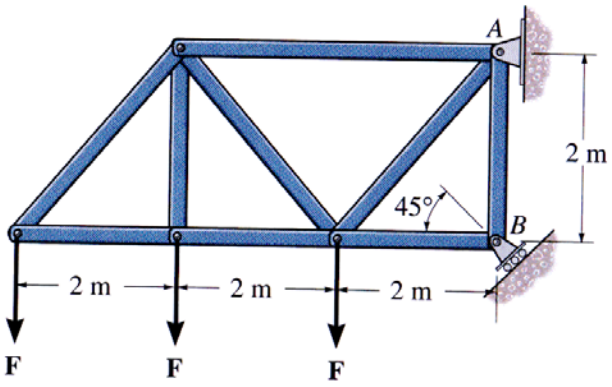
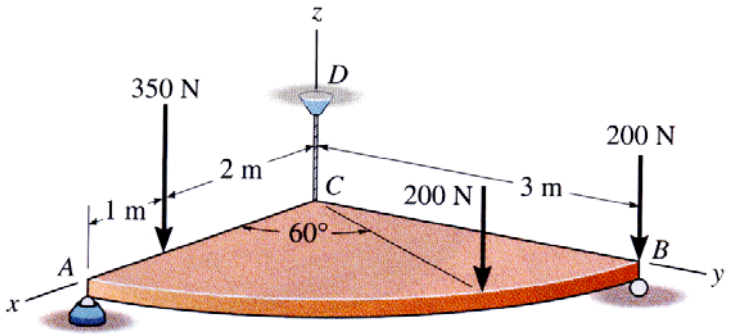
BE 50A - Fall 2001 - Test 2 **Name:** _____

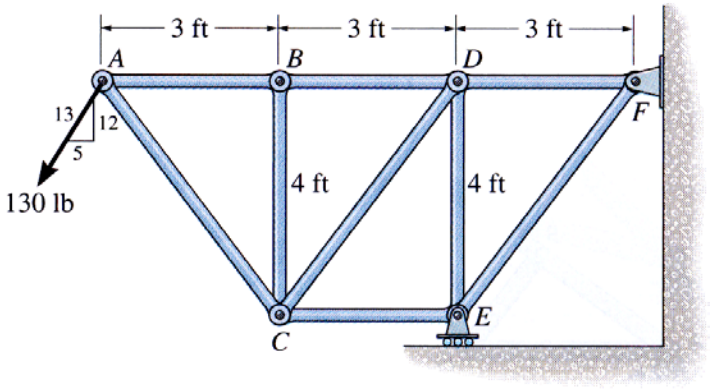
1. Determine the reactions at pin *A* and roller *B* required to support the truss. Set $F = 600$ N. *Specify reaction directions on your answers.*



2. Determine the force components acting on the ball-and-socket at *A*, the reaction at the roller *B*, and the tension on the cord *CD* needed for equilibrium of the quarter circular plate. *Specify reaction directions on your answers.*



3. Determine the force in members *AB*, *BD*, *CD*, and *CE* of the truss, and state if the members are in tension or compression.



4. The compound beam is pin-supported at *C* and supported by a roller at *A* and *B*. There is a hinge (pin) at *D*. Determine the reactions at supports *A*, *B*, and *C*. *Specify reaction directions on your answers.*