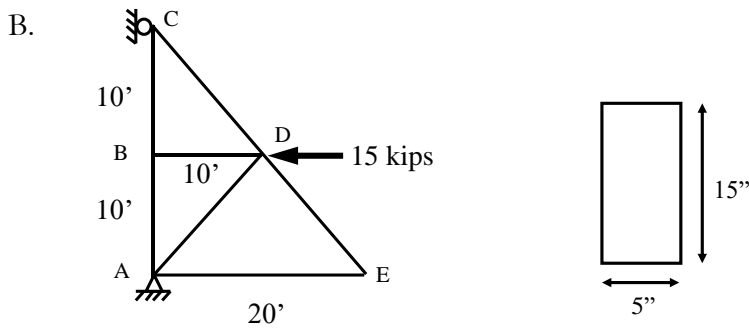
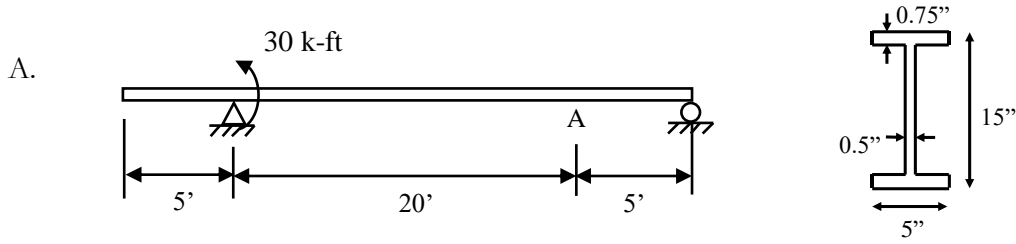
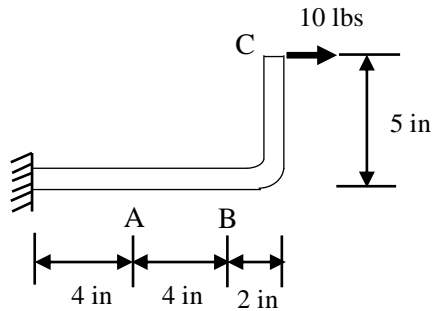


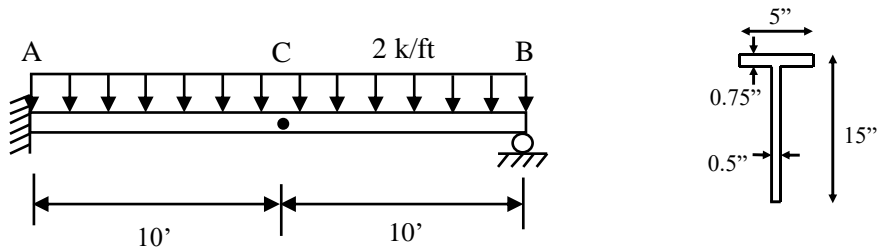
1. For the figures below, find the maximum stresses as appropriate. Assume they are all made of A992 steel with the cross-sections provided.



- C. On the pipe assembly below, the following forces are also present at location A) 15 lb force into the page, B) 20 lb force into the page, and C) 30 lb force out of the page. The outer diameter of the pipe is 1 in and the inner diameter is 0.75 in.



- D. There is a hinge at location C on the figure below.



2. If a factor of safety of 2 is used, have any of the members above exceeded the allowable stress assuming the failure stress is the yield stress (Hint: $\tau_y = 0.6\sigma_y$).