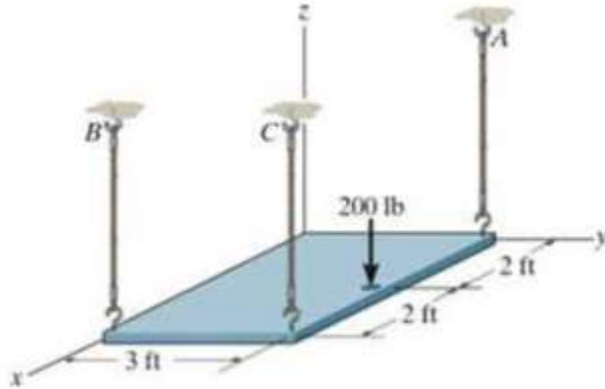


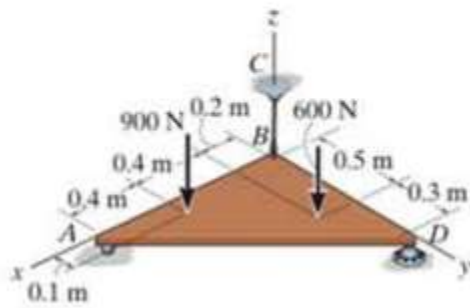
ENGR 8 Assignment 8 In Class Problems
Ch5 - F7,F8,F9,F12,75,87

F5-7. The uniform plate has a weight of 500 lb. Determine the tension in each of the supporting cables.



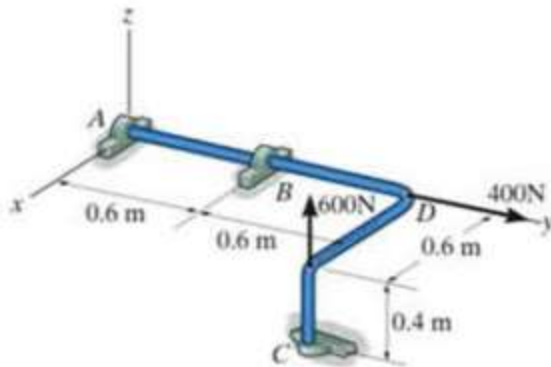
$$T_a = 350, T_b = 250, T_c = 100 \text{ lb}$$

F5-8. Determine the reactions at the roller support A , the ball-and-socket joint D , and the tension in cable BC for the plate.



$$F_a = 660 \text{ N}, D_x = D_y = 0, D_z = 487.5 \text{ N}, T_{bc} = 352.5 \text{ N}$$

F5-9. The rod is supported by smooth journal bearings at A , B and C and is subjected to the two forces. Determine the reactions at these supports.



$$A_x = 500 \text{ N}, A_z = 333.3 \text{ N}, B_x = 1400 \text{ N},$$
$$B_z = -933.3 \text{ N}, C_x = -900 \text{ N}, C_y = -400 \text{ N},$$