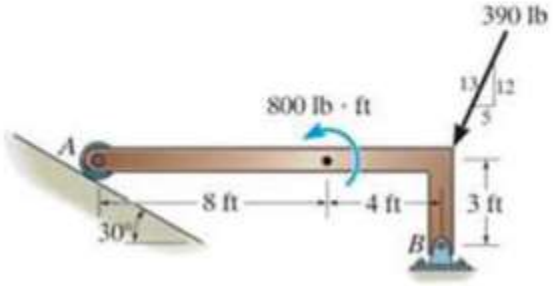
ENGR 8 Assignment 7 In Class Problems

Ch5 – 1,2,3,9

Ch5 – F1,F2,F3,11,13,22

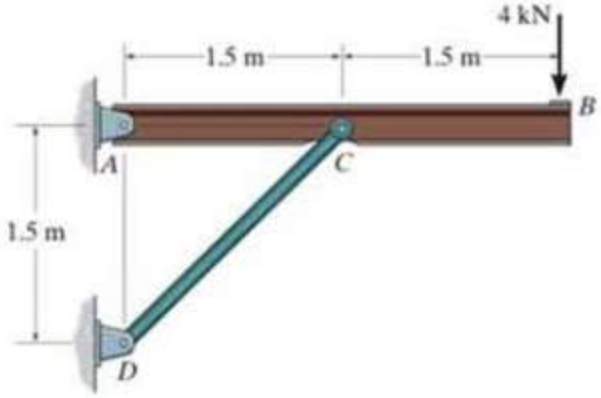
5–2. Draw the free-body diagram of member AB, which is supported by a roller at A and a pin at B. Explain the significance of each force on the diagram. (See Fig. 5–7*b*.)



F5–1. Determine the horizontal and vertical components of reaction at the supports. Neglect the thickness of the beam.

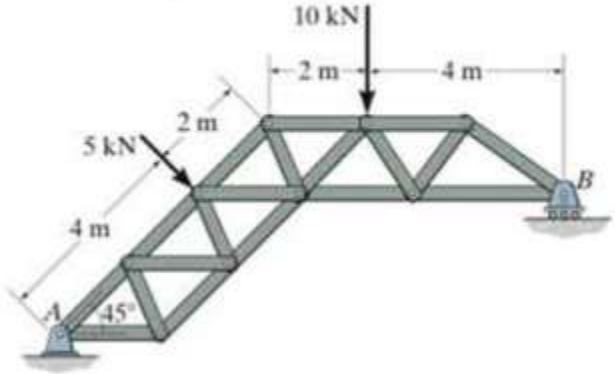
Ax = 300 lb, Ay = 140 lb, By = 260 lb

F5–2. Determine the horizontal and vertical components of reaction at the pin A and the reaction on the beam at C.



Fcd = 11.3 kN, Ax = -8 kN, Ay = -4 kN

F5–3. The truss is supported by a pin at A and a roller at B. Determine the support reactions.



Nb = 8.05 kN, Ax = 3.54 kN, Ay = 5.49 kN