



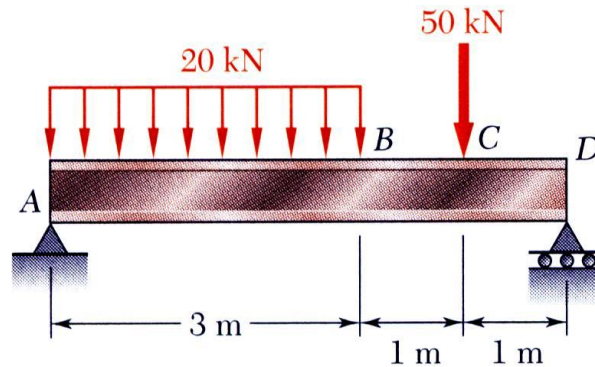
UNIVERSITY OF TECHNOLOGY
BUILDING AND CONSTRUCTION DEPARTMENT
Structural Engineering Division



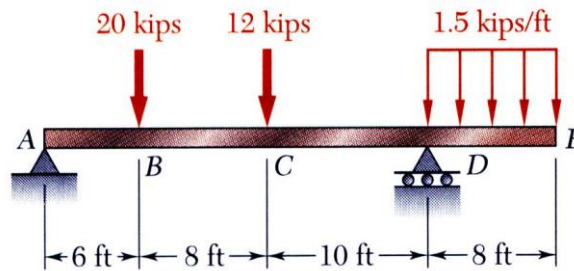
Second Year Home Work -1 Strength of Material
by: Prof. Dr. Nabeel Al-Bayati (2016 – 2017)

For the loaded beams shown below, Estimate the reaction values of supports:

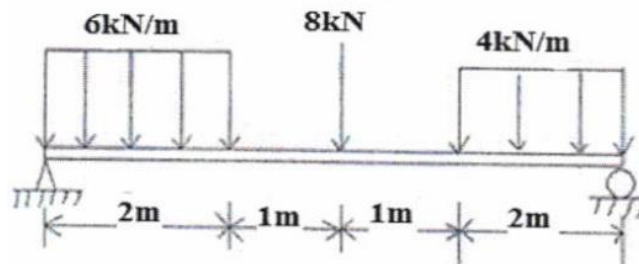
H.W. - 1:



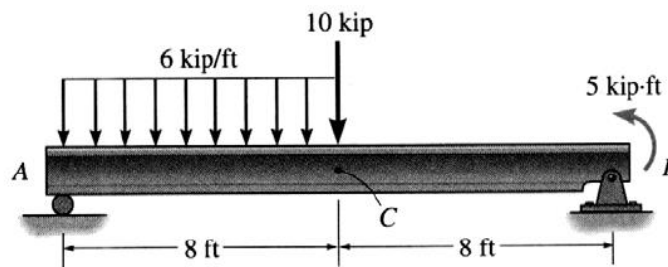
H.W. - 2:



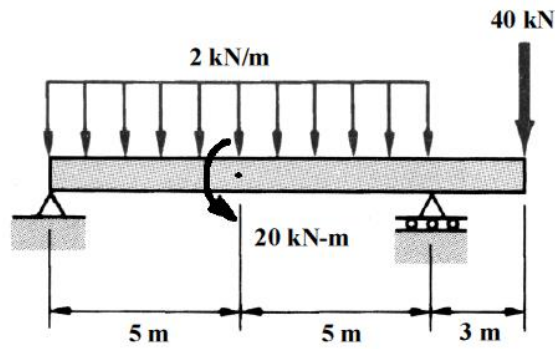
H.W. - 3:



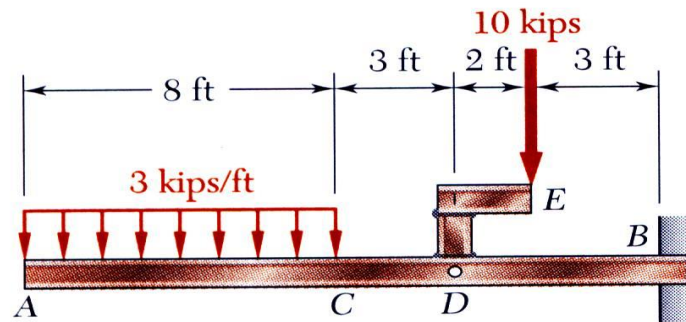
H.W. - 4:



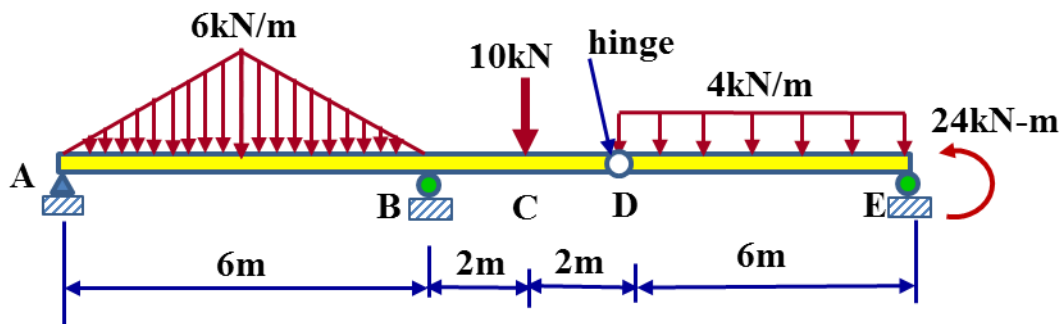
H.W. - 5:



H.W. - 6:

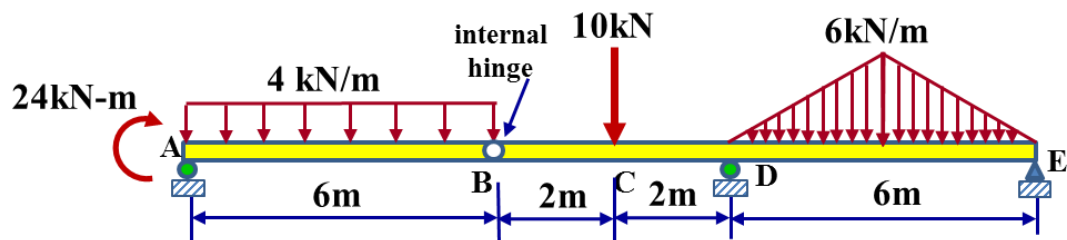


H.W. - 7:



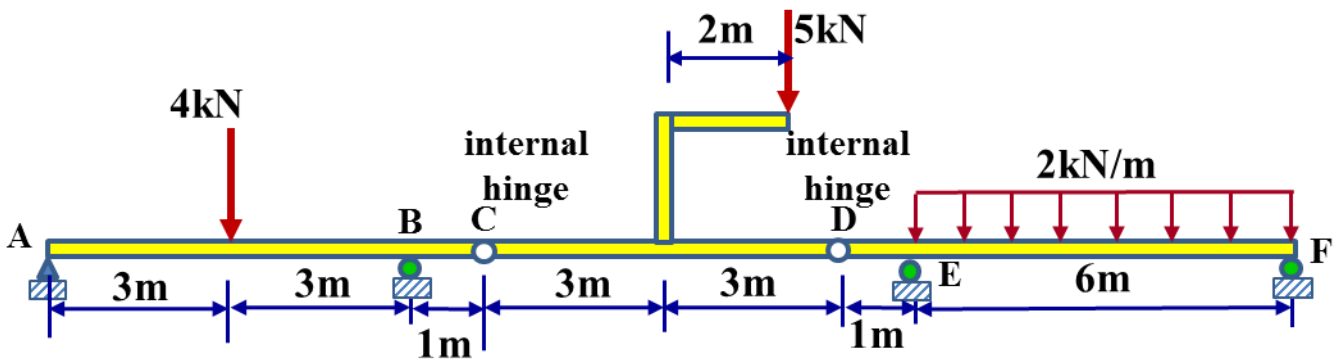
- Hints:** 1-start solution with part CD and then with part ABCD
 2- $R_{AX} = 0$

H.W. - 8:



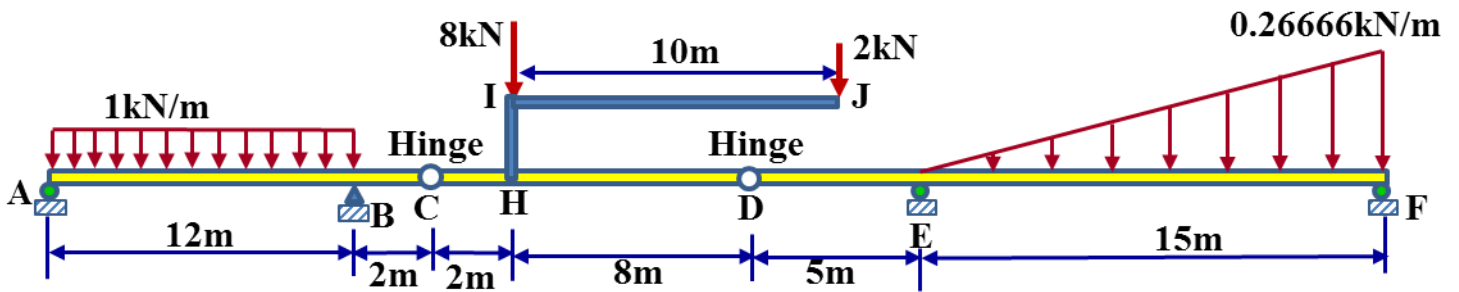
- Hints:** 1-start solution with part AB and then with part BCDE
 2- $R_{EX} = 0$ and $R_{EY} = -5\text{kN}$

H.W. - 9:



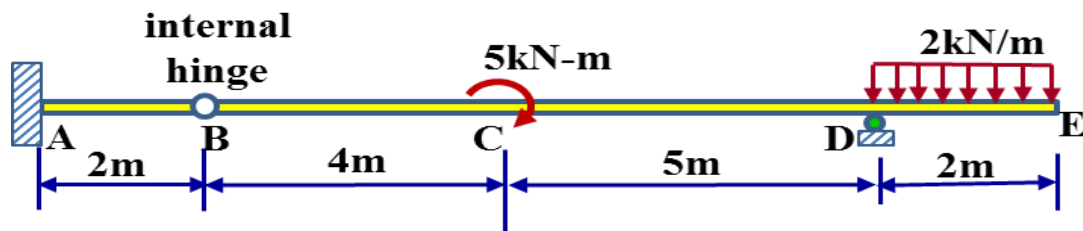
Hints: start solution with part CD and then with part ABC and DEF

H.W. - 10:



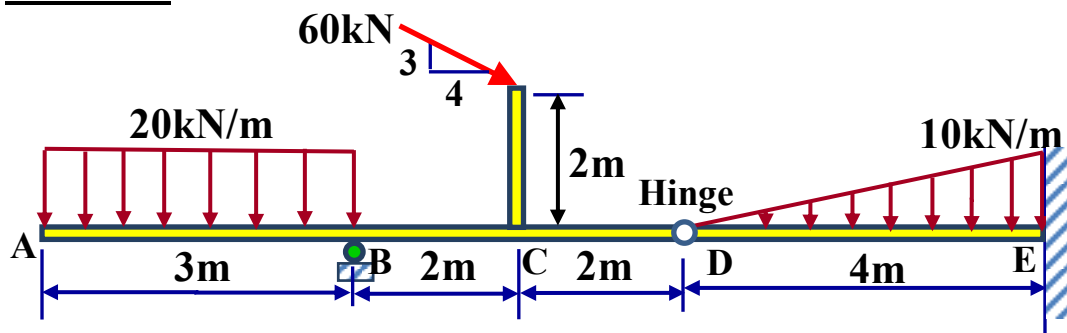
Hint: start solution with part CD and then with part ABC and DEF

H.W. - 11:

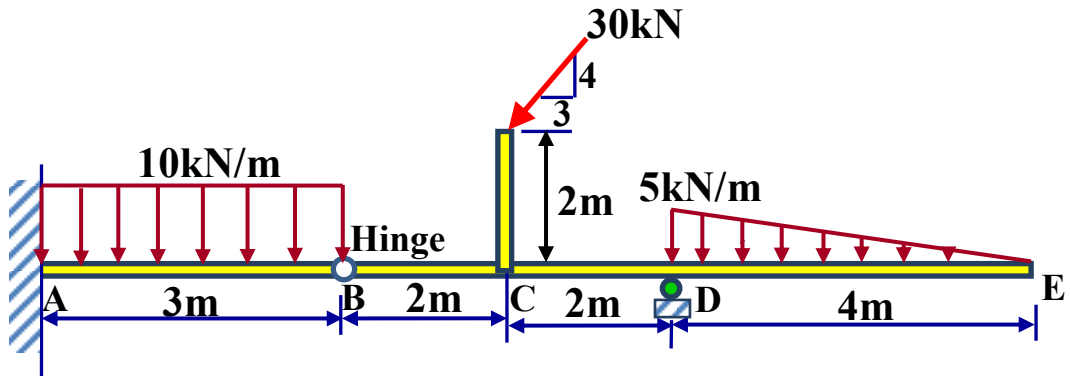


Hint: start solution with part BCDE and then with part AB

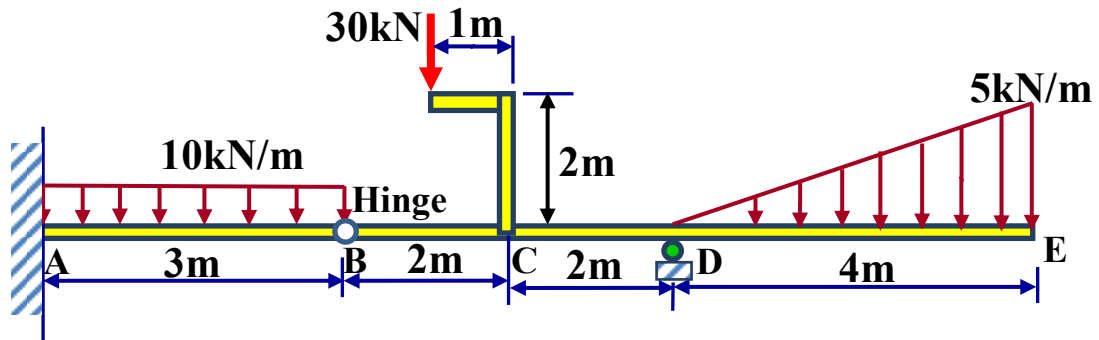
H.W. - 12:



H.W. - 13:



H.W. - 14:



H.W. - 15:

