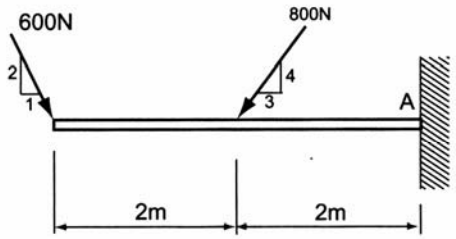
ENDS 231. Assignment #3

Date: 2/1/07, *due 2/13/07* *Pass-fail work*

Problems: from Onouye, Chapters 3 & 4.
*Note: Problems marked with a * have been altered with respect to the problem stated in the text.*

3.2.3 Determine the support reactions developed at ***A*** for the cantilevered balcony beam.

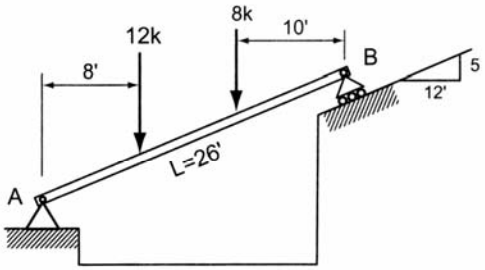


Problem 3.2.3

Partial answers to check with: A_x = +212 N,
A_y = +1,177 N, M_{RA} = -3,428 Nm

3.2.4 Solve for the support reactions at ***A*** and ***B***.

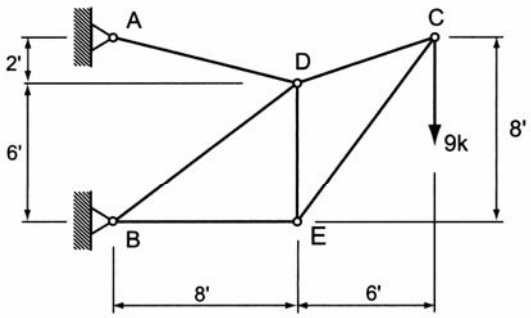
Partial answers to check with: A_x = +3.08 k
A_y = +12.62 k, B = 8 k.



Problem 3.2.4

4.1.8 A cantilever truss supports a single load of 9 k at the free end. Solve for the support reactions and determine all member forces using the method of joints.

***Also solve for all member forces to verify your work using Multiframe2D. Submit the file to the Assignments folder in the class folder, and provide a print of the axial forces diagram.**



Problem 4.1.8

Partial answers to check with: A = 16.23 k,
B_x = +15.75 k, BD = -8.43 k , DE = 12 k,
DC = 9.49 k, EC = -15 k.