

MAE 415 – Analysis of Structures

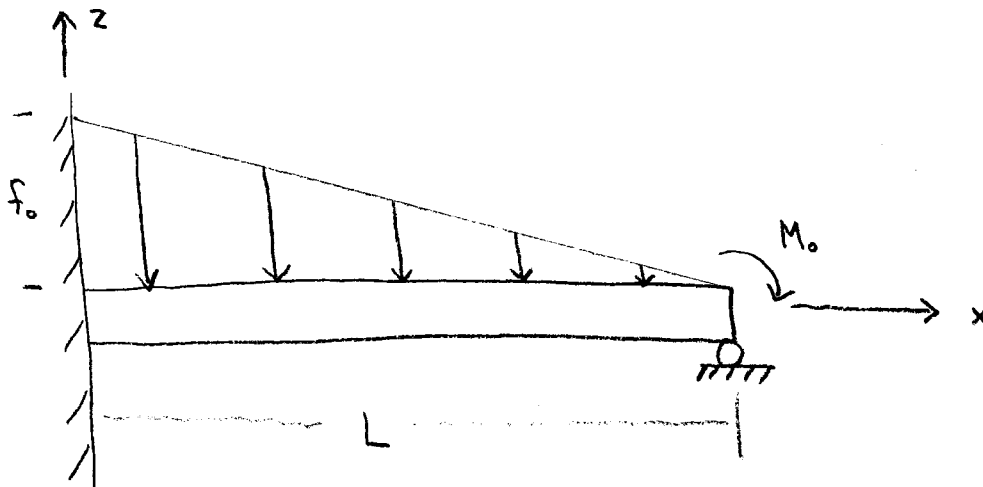
Instructors: Bloebaum/Hulme

Assignment #6

Due date: 10/13/00, BEFORE class begins

Class web page: <http://www.eng.buffalo.edu/~clb/mae415.html>

1. *Given:* A cantilevered beam in a state of bending, with numerous loads applied as shown. *Find:* Deflections $u, v,$ and w as a function of longitudinal axis x . Assume that the beam is homogeneous, and uniform. Solve this problem by starting with the GDE's, and then make use of the known conditions at the boundaries.



2. For the beam shown above, find the vertical deflection (as a function of x) using the “bending moment formulation” derived in class. How do the answers compare?