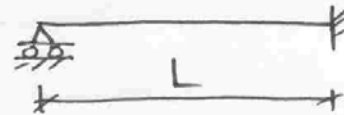


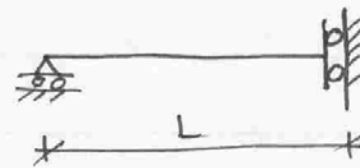
Homework # 3

I) Calculate the critical load for an ideal column of length L and the following boundary conditions:

a) $y(0) = y(L) = 0$
 $y''(0) = y'(L) = 0$



b) $y(0) = y'(L) = 0$
 $y''(0) = y'''(L) = 0$



II) At what load factor would the top chord members of the pin jointed truss become unstable? All members are tubular with $I = 3 \times 10^6 \text{ mm}^4$ and $E = 70 \text{ kN/mm}^2$ and all joints are effectively braced against out-of-plane truss displacements.

