#1) A colleague has performed a structural analysis of a building considering several service level loading possibilities. For an interior column, the following service-level axial loads were computed:

Dead Load= 50 kips  
Live Load= 60 kips  
Wind Load= 33 kips  
Seismic Load= 84 kips  
Rain Load from Roof= 12 kips  
Snow Load from Roof= 18 kips  
Live Load from Roof= 15 kips  

Compute the factored axial load for this column. Note the wind and seismic forces are at strength level.

#2) Compute the factored moment and shear envelopes for HW #1 using the service-level solution provided on the class website: http://classes.engr.oregonstate.edu/cce/spring2019/ce481/ Use all appropriate load combinations.