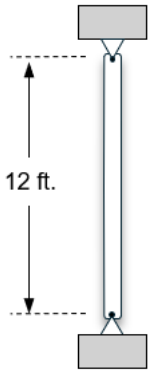
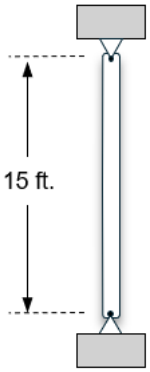
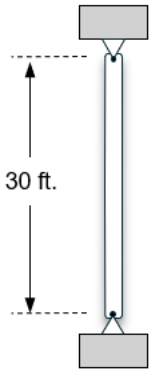
Classroom Problem 4.6-1: Compute the available strength of the compression member **W14 x 68** of **A992** steel (F_y=50 *ksi* and F_u=65 *ksi*) with pinned ends with the aid of a) **Table 4-14** and b) **Table 4-1a** from Part 4 of the ***Manual***.



Classroom Problem 4.6-2: Select the lightest **W-shape** that can resist a service dead load of 100 *k* and a service live load of 250 *k.* The effective length is 15 *ft.* Use **A922** steel (F_y = 50 *ksi*).



<u>Classroom Problem 4.6-3</u>: Select a **W21** shape of **A992** steel (F_y = 50 *ksi*) that can resist a service dead load of 125 *k* and a service live load of 250 *k*. The effective length, L_c = 30 *ft.*



Classroom Problem 4.6-4: Select a **W14** shape with F_y = 70 *ksi* that can resist a service dead load of 125 *k* and a service live load of 250 *k*. The effective length, L_c = 30 *ft.*