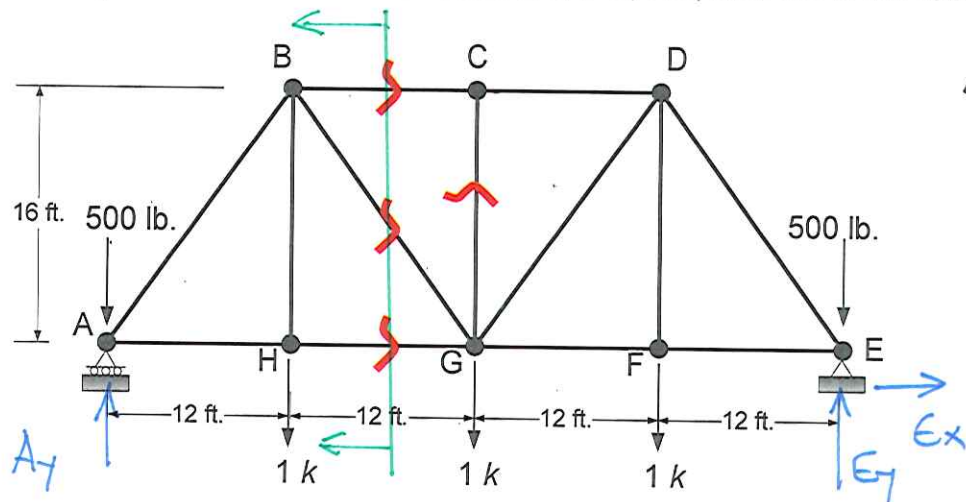
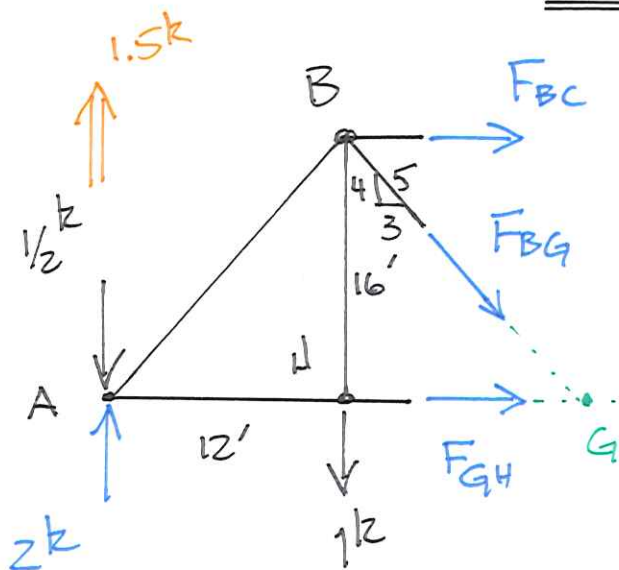


Example 3-4: Determine the forces BC, BG, HG, and CG in the following truss.



$$\begin{aligned} \sum M_E = 0 &= 1k(12' + 24' + 36') + \frac{1}{2}k(48') - A_y(48') \\ \underline{\underline{A_y = 2k}} \end{aligned}$$

ZERO FORCE MEMBER $\underline{\underline{F_{CG} = 0}}$



$$+\uparrow \sum F_y = 0 = -\frac{4}{5}F_{BG} - 1k + 2k - \frac{1}{2}k \quad \underline{\underline{F_{BG} = 0.625k}}$$

$$\sum M_B = 0 = F_{GH}(16') + \frac{1}{2}k(12') - 2k(12')$$

$$\underline{\underline{F_{GH} = 1.125k}}$$

$$\sum M_G = 0 = -F_{BC}(16') + 1k(12') - 1.5k(24')$$

$$\underline{\underline{F_{BC} = -1.5k}}$$

JOINT C

