

**Homework Problem 2.B**

**Given:** Tension forces  $\vec{F}_{BO}$  and  $\vec{F}_{BH}$  act on a three-dimensional frame at point B.

**Find:**

- Determine the unit vector and force vector for  $\vec{F}_{BO}$ .
- Determine the unit vector and force vector for  $\vec{F}_{BH}$ .
- Calculate the direction angles and direction cosines for  $\vec{F}_{BH}$ .

Use the following parameter values in your analysis:  $F_{BO} = 100$  lb,  $F_{BH} = 150$  lb,  $b = 3$  ft,  $d = 2$  ft,  $v = 5$  ft and  $h = 4$  ft.

