Homework Problem H2.B

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

Find:

a) Determine the unit vector and force vector for $\vec{F}_{BO}$.

b) Determine the unit vector and force vector for $\vec{F}_{BH}$.

c) 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.