$\vec{F_1} + \vec{F_2} = ?$ $\quad A=(0,4,6)\quad B=(4,5,0)\quad C=(-2,8,0)$

$$\vec{F_1} = |\vec{F_1}| \cdot \frac{\vec{AC}}{|\vec{AC}|} = 50\,\frac{(-2,4,-6)}{2\sqrt{14}} = \left(\frac{-50}{\sqrt{14}}, \frac{100}{\sqrt{14}}, \frac{-150}{\sqrt{14}}\right)$$

$$\vec{F_2} = |\vec{F_2}| \cdot \frac{\vec{AB}}{|\vec{AB}|} = 35 \cdot \frac{(4,1,-6)}{\sqrt{53}} = \left(\frac{140}{\sqrt{53}}, \frac{35}{\sqrt{53}}, \frac{-210}{\sqrt{53}}\right)$$

$$\vec{F_1} + \vec{F_2} = \left(\frac{-50}{\sqrt{14}}, \frac{100}{\sqrt{14}}, \frac{-150}{\sqrt{14}}\right) + \left(\frac{140}{\sqrt{53}}, \frac{35}{\sqrt{53}}, \frac{-210}{\sqrt{53}}\right)$$

$$\vec{F_1} + \vec{F_2} \approx (5,87\ ;\ 31,53\ ;\ -68,93)$$

$$|\vec{F_1} + \vec{F_2}| = 76,02\ N$$

Módulo: 76,02 N

Direção: mesma do vetor $\left(\frac{587}{7602}, \frac{3153}{7602}, \frac{-6893}{7602}\right)$

$\alpha = 85,57^\circ \qquad \beta = 65,5^\circ \qquad \gamma = 155,06^\circ$