

**Exercise 1** Consider

- The vector  $\vec{\mathbf{v}}$  whose tip is at the point  $(-3, 4, 2)$  and whose tail is at the point  $(-1, 2, -1)$ .
- The vector  $\vec{\mathbf{w}}$  whose tip is at the point  $(1, -3, 0)$  and whose tail is at the point  $(3, 3, 1)$ .

Compute  $\vec{\mathbf{v}} + \vec{\mathbf{w}}$ .

$$\vec{\mathbf{v}} + \vec{\mathbf{w}} = \langle \boxed{-4}, \boxed{-4}, \boxed{2} \rangle$$

**Hint:** We find:

$$\vec{\mathbf{v}} = \langle \boxed{-2}, \boxed{2}, \boxed{3} \rangle$$

$$\vec{\mathbf{w}} = \langle \boxed{-2}, \boxed{-6}, \boxed{-1} \rangle$$