

59. (a) If we add the equations, we obtain $2\vec{a} = 6\vec{c}$, which leads to $\vec{a} = 3\vec{c} = 9\hat{i} + 12\hat{j}$.
- (b) Plugging this result back in, we find $\vec{b} = \vec{c} = 3\hat{i} + 4\hat{j}$.