2-11 Since the acceleration is north, the velocity will gradually acquire a velocity in the North direction. The velocity component in the East direction will be unaffected by the acceleration. Thus if $\mathbf{v} = 100$ [m/s] $= \sqrt{\{(v_x)^2 + (v_y)^2\}}$, then $v_y = \sqrt{\{(100 \text{ [m/s]})^2 - (v_x)^2\}} = \sqrt{\{(100 \text{ [m/s]})^2 - (60 \text{ [m/s]})^2\}} = 80$ m/s. From $v_y = v_{0y} + a_y t = 0 + 100 \text{ [m/s}^2\text{] t}$ we solve for $t = 80 \text{ m/s} / 100 \text{ m/s}^2 = 0.8$ s. Thus (A) is correct.