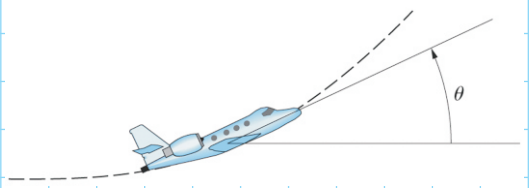
Name Date

Week: _____ **Problem:** _____

Given:

At the instant shown, the magnitude of the airplane's velocity is 130 m/s, its tangential component of acceleration is $a_t = -4$ m/s^2, and the rate of change of its path angle is $d\theta/dt = 5°/s$.

(a) What are the airplane's velocity and acceleration in terms of normal and tangential components?
(b) What is the instantaneous radius of curvature of the airplane's path?



Required:

Solution: