

AME 538

Homework 14

Due: Wednesday, 2 October 2002, in class

1. Panton, 13.2, p. 357.
2. For the flow of the previous homework, consider the fluid particle at the point $(x_1, x_2) = (1 \text{ m}, 3 \text{ m})$. Compute the acceleration vector using traditional Cartesian coordinates. Resolve the acceleration vector into radial and azimuthal components. What is the centripetal and Coriolis acceleration at this point? What is the local radius of curvature of the particle path at this point?