

AME 538

Homework 7

Due: Friday, 8 September 2000, in class

1. If we have a description of the velocity field in Eulerian coordinates as $v_1 = x_1 t + 1$, $v_2 = x_2 t^2 + 2$, find expressions and plots for
 - the streamline through $(1, 2)$ at $t = 1$,
 - the pathline for which $(x, y) = (1, 2)$ at $t = 1$,
 - the streakline for points which have passed through $(x, y) = (1, 2)$ when $t = 1$.
2. Panton, 5.4, p. 126.