AME 538
Homework 7
Due: Friday, 13 September 2002, in class

1. If we have a description of the velocity field in Eulerian coordinates as $v_1 = x_1 t + t$, $v_2 = x_2 t^2 + 1$, 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, 5.5, p. 126.