MthSc 208: Differential Equations (Spring 2011)
In-class Worksheet 2b: Integrating factor

NAME:

1. Find the *general solution* of the differential equation $y' = y + e^t$, by the *integrating factor* method.

2. Carry out the first few steps (i.e., until you have to integrate) of the integrating factor method with the following ODEs:

   - $y' + 4y = t^2$

   - $y' + (\sin t)y = 1$

   - $y' - 12t^5 y = t^3$

   - $y' + \frac{1}{t}y = 1$.