HOMEWORK #6 (M427K FALL 2004)

1. SOLVE DIFFERENTIAL EQUATION

$$xy' + (x^3 + x + 1)y = x^2$$

(hint: takes the form $y' + P(x)y = Q(x)$. Here $y' = \frac{dy}{dx}$)

2. SOLVE DIFFERENTIAL EQUATION

$$y' + \sin(x)y = \sin(x)$$

(hint: same as previous exercise)

3. SOLVE DIFFERENTIAL EQUATION

$$y' + e^x y = e^x + 3$$

(hint: same as previous exercise)

4. SOLVE DIFFERENTIAL EQUATION

$$y' + \tan(x)y = \cos(x)$$

(hint: same as previous exercise)