

**HOMEWORK #1 (M427K FALL 2004)**

1. SOLVE THE DIFFERENTIAL EQUATION

$$e^x \cos(10x) dx + e^{-3x} \frac{y}{(y+10)(y+11)} dy = 0$$

(hint: separate the variables)

2. SOLVE THE DIFFERENTIAL EQUATION

$$(\sin(4x) \cos(10x) (y^2 - 4)) dx + 6dy = 0$$

(hint: separate the variables)

3. SOLVE THE DIFFERENTIAL EQUATION

$$\tan(4x)(y^2 + 9) dx + 5dy = 0$$

(hint: separate the variables)