Quiz 2 Calc 2 4/2/2003

Each problem is worth 5 points. For full credit provide complete justification for your answers.

1. Determine whether $y = e^{3x}$ is a solution to the differential equation y'' - 4y' + 3y = 0.

2. Determine whether $y = x \sin x$ is a solution to the differential equation $y'' + y = 2 \cos x$.