## 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 $\mathrm{y}=e^{3 \mathrm{x}}$ is a solution to the differential equation $\mathrm{y}^{\prime \prime}-4 \mathrm{y}^{\prime}+3 \mathrm{y}=0$.
2. Determine whether $y=x \sin x$ is a solution to the differential equation $y^{\prime \prime}+y=2 \cos x$.
