Quiz 5 Calculus 2 3/7/2008

Each problem is worth 5 points. Clear and complete justification is required for full credit.

1. For what values of k does the function $y = \cos k t$ satisfy the differential equation y'' + 4y = 0?

2. Is $y = t e^{-t}$ a solution to y'' + 2y' + y = 0?