Maple Project 10

Directions: This project is due in class on Friday, July 30 1999 and will be attached to Quiz 10. Please prepare your project by modifying the appropriate instructor-provided worksheets.

1. Compute the inverse Laplace transform of the function

\[ F(s) = 100 \frac{1}{s(s^2 + 4)} - \frac{1}{100s^2(s - 1)} \]

and plot the resulting function of \( t \) over the interval \( 0 \leq t \leq 10 \).

2. Solve the initial value problem

\[ y'' - 6y' + 13 = e^{2t} \]
\[ y(0) = 1 \]
\[ y'(0) = 2, \]

using Laplace transform methods.