

Problem 24

In each of Problems 21 through 28:

- (a) Determine a suitable form for $Y(t)$ if the method of undetermined coefficients is to be used.
- (b) Use a computer algebra system to find a particular solution of the given equation.

$$y'' + 2y' + 2y = 3e^{-t} + 2e^{-t} \cos t + 4e^{-t}t^2 \sin t$$