Quiz 8 for Calc 4 on Oct. 30, 2014

Name:_____ **RUID:**_____
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1. Find the general solution to

$$y'' + 4y' + 4y = t^{-2}e^{-2t}, t > 0$$

2. Find the general solution to

$$y^{(4)} - 2y'' + y = e^t$$

Hint: When trying to find the coefficients, use the following formulas to get Y'' and $Y^{(4)}$:

$$(fg)'' = f''g + 2f'g' + fg''$$

$$(fg)^{(4)} = f^{(4)}g + 4f^{(3)}g' + 6f''g'' + 4f'g^{(3)} + fg^{(4)}$$

You don't need to compute either Y' or Y''', as you don't need them here.