Name:

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$\qquad$

1. Solve the differential equations. (3 points each)
(a) $y^{\prime \prime}+y=\cos (3 x)$
(b) $y^{\prime \prime}-y^{\prime}=-8 x+3$
2. Solve the initial value problem $y^{\prime \prime}-4 y^{\prime}+4 y=2 e^{2 x}, y(0)=0, y^{\prime}(0)=2$. ( 4 points)
