(1) Find the general solution to the differential equation $y'' + 2y' + 5y = 3\sin(2t)$.
(2) Find the general solution to the differential equation $y'' + y = 3\cos 2t + t\cos 2t$.
(3) Find the solution to $y'' + y' - 2y = 2t$, $y(0) = 0$, $y'(0) = 1$.
(4) Find the solution to $y'' + 4y = t^2 + 3e^t$, $y(0) = 0$, $y'(0) = 2$.