

HOMEWORK 12-PART C

If you cannot integrate some functions, just leave it as integrating form.

1. Find general solutions to $y'' + 2y' + 1 = te^t$.
2. Find general solutions to $y'' - y = tant$.
3. (1) Verify that $y_1(t) = \frac{1}{t}$ and $y_2(t) = \frac{1}{t} \text{Int}$ are solutions to the homogeneous equation $t^2y'' + 3ty' + y = 0$;
(2) Use variation of parameters to find general solutions to $t^2y'' + 3ty' + y = \frac{1}{t}$.