Dr. Z.'s Calc4 Homework assignment 2

Find a solution of the given initial value problems.

1. $y' + 3y = te^{3t}$, $y(0) = 1$.

2. $y' - y = e^t$, $y(1) = 0$.

3. $y' - 2y = e^{2t}$, $y(0) = 1$.

4. $y' + (2/t)y = (cost)/t^2$, $y(\pi) = 0, t > 0$.

5. $ty' + 3y = \cos t$, $y(\pi) = 0, t > 0$.

6. $ty' + (t+1)y = 2t$, $y(1) = 0$.

Find the General solutions:

7. $ty' + (t+1)y = 3te^{-t}$

8. $2y' - y = e^{2t}$