

$$\begin{aligned}
 y_1 &= x e^x + 2e^x \\
 y_2 &= 2x e^x + 2e^x + x^2 \\
 y_3 &= 2x^2 + 2e^x
 \end{aligned}$$

$\rightarrow$ here $2e^x$ is common to all
 $\Rightarrow$ Particular solution = P.I = $2e^x$

$\Rightarrow$ now check condition
 $y(0) = 0$
 $2e^0 = 2 \neq 0$

$\Rightarrow$ not exist solutions