Question 1

Find the general solution of each of the following systems:

a. $\begin{cases} y_1 + y_2 = y_1' \\ -2y_1 + 4y_2 = y_2' \end{cases}$

b. $\begin{cases} y_1 - y_2 = y_1' \\ y_1 + y_2 = y_2' \end{cases}$

c. $\begin{cases} y_1 \qquad + y_3 = y_1' \\ 2y_2 + 6y_3 = y_2' \\ y_2 + 3y_3 = y_3' \end{cases}$