

* Solve $3x + 9(x+1) = 4x + 9$

① Simplify each side

$$\begin{array}{r} 3x + 9x + 9 = \\ \hline 12x + 9 = 4x + 9 \\ -12x \quad \quad -12x \\ \hline 9 = \underline{-8x + 9} \\ -9 \quad \quad \quad -9 \\ \hline 0 = \underline{-8x} \\ \hline 0 = x \end{array}$$

② get variables on only 1 side

$\frac{0}{-8} = \frac{-8x}{-8}$

$0 = x$

$$\begin{array}{l} 3x + 9(x+1) = 4x + 9 \\ 3(0) + 9(0+1) = 4(0) + 9 \\ 0 + 9(1) \qquad \qquad \qquad 0 + 9 \\ 0 + 9 \qquad \qquad \qquad 9 \\ \hline 9 = 9 \end{array}$$