

## Solving Systems by matrices

$$\text{Ex) } 1x + 1y = 8$$

$$2x + y = 1$$

$$\begin{matrix} [A] \\ \begin{bmatrix} 1 & 1 \\ 2 & 1 \end{bmatrix} \end{matrix} \begin{matrix} \\ \\ \begin{bmatrix} x \\ y \end{bmatrix} \end{matrix} = \begin{matrix} [B] \\ \begin{bmatrix} 8 \\ 1 \end{bmatrix} \end{matrix}$$

$$\begin{matrix} x = -7 \\ y = 15 \end{matrix}$$

$$[A]^{-1} * [B]$$

$$\text{Ex) } x + y + z = -2$$

$$3x + 3y + z = -18$$

$$4x + 2y + z = -20$$