

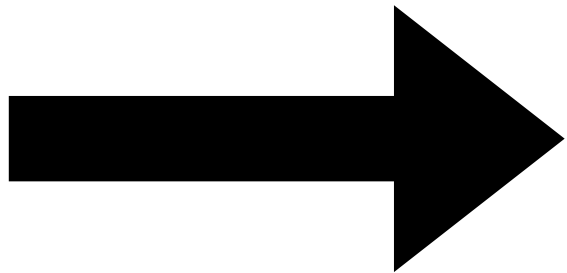
Example: Row Reductions

$$\begin{bmatrix} 2 & 3 & -6 \\ 4 & -5 & 10 \end{bmatrix}$$

$$R_2 - 2R_1 \rightarrow$$

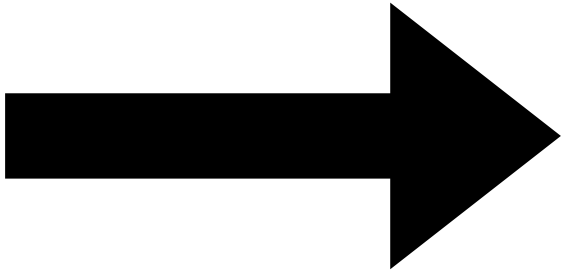
$$\begin{bmatrix} 2 & 3 & -6 \\ 0 & -11 & 22 \end{bmatrix}$$

$R_2/(-11)$



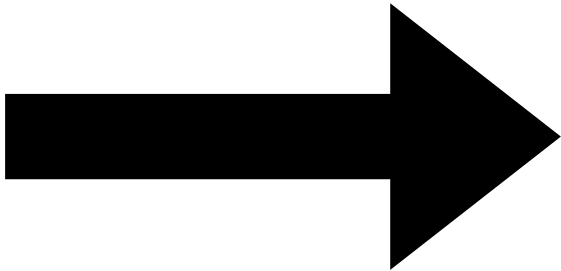
$$\begin{bmatrix} 2 & 3 & -6 \\ 0 & 1 & -2 \end{bmatrix}$$

$R_1/2$



$$\begin{bmatrix} 1 & 0 & 0 \\ 0 & 1 & -2 \end{bmatrix}$$

$$R_1 - 3R_2$$



$$\begin{bmatrix} 2 & 0 & 0 \\ 0 & 1 & -2 \end{bmatrix}$$

Example: Row Reductions

$$\begin{array}{ccc} \begin{bmatrix} 2 & 3 & -6 \\ 4 & -5 & 10 \end{bmatrix} & \begin{array}{c} R_2 - 2R_1 \\ \longrightarrow \\ R_2 / (-11) \\ \longrightarrow \\ R_1 - 3R_2 \\ \longrightarrow \\ R_1 / 2 \\ \longrightarrow \end{array} & \begin{bmatrix} 2 & 3 & -6 \\ 0 & -11 & 22 \end{bmatrix} \\ & & \begin{bmatrix} 2 & 3 & -6 \\ 0 & 1 & -2 \end{bmatrix} \\ & & \begin{bmatrix} 2 & 0 & 0 \\ 0 & 1 & -2 \end{bmatrix} \\ & & \begin{bmatrix} 1 & 0 & 0 \\ 0 & 1 & -2 \end{bmatrix} \end{array}$$

Example: Row Reductions

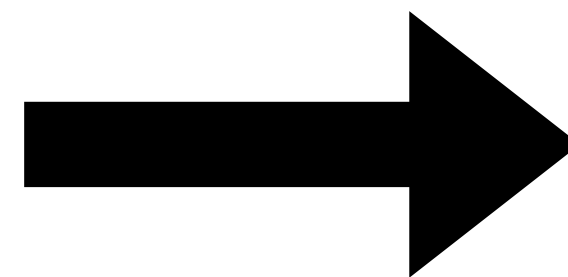
$$R_2 \rightarrow R_2 - 2R_1$$

$$R_2 \rightarrow R_2 / (-11)$$

$$R_1 \rightarrow R_1 - 3R_2$$

$$R_1 \rightarrow R_1 / 2$$

$$\begin{bmatrix} 2 & 3 & -6 \\ 4 & -5 & 10 \end{bmatrix}$$



$$\begin{bmatrix} 1 & 0 & 0 \\ 0 & 1 & 2 \end{bmatrix}$$