

Elementary Row Operations

scaling

multiply a row by a number

interchange

switch two rows

replacement

add two rows (and replace one
with the sum)

The opportunity doesn't change the situation

Elementary Row Operations

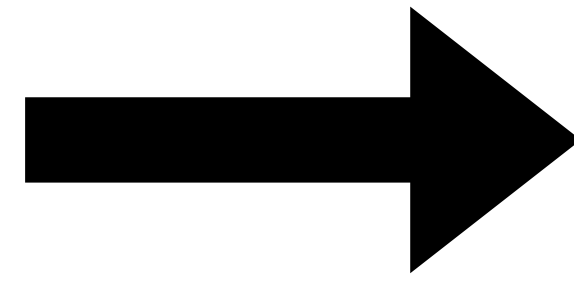
scaling	multiply a row by a number
interchange	switch two rows
replacement	add two rows (and replace one with the sum)

These operations don't change the solutions

Scaling Example

$$2x + 3y = -6$$

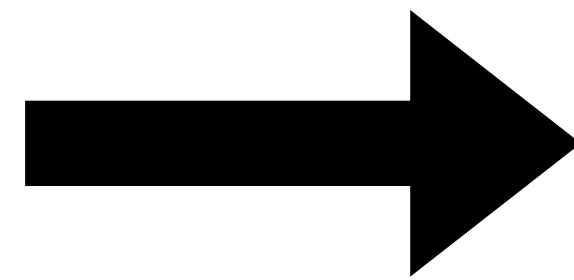
$$4x - 5y = 10$$



$$4x + 6y = -12$$

$$4x - 5y = 10$$

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



$$\begin{bmatrix} 4 & 6 & -12 \\ 4 & -5 & 10 \end{bmatrix}$$