

$x_1$	$x_2$	$x_3$	$b_i$
0	3	9	3
2	6	2	0
1	5	10	5

$$(-2) \begin{pmatrix} 1 & 5 & 10 & | & 5 \\ 0 & 3 & 9 & | & 3 \\ 2 & 6 & 2 & | & 0 \end{pmatrix}$$

$$\begin{aligned} 6 - 2(5) &= -4 \\ 2 - 2(10) &= -18 \\ 0 - 2(5) &= -10 \end{aligned}$$

$$\begin{array}{l} (-5) \begin{pmatrix} 1 & 5 & 10 & | & 5 \\ 0 & 3 & 9 & | & 3 \\ 0 & -4 & -18 & | & -10 \end{pmatrix} \\ (4) \begin{pmatrix} 1 & 0 & -5 & | & 0 \\ 0 & 1 & 3 & | & 1 \\ 0 & 0 & -6 & | & -6 \end{pmatrix} \\ (-3) \begin{pmatrix} 1 & 0 & 0 & | & 5 \\ 0 & 1 & 0 & | & -2 \\ 0 & 0 & 1 & | & 1 \end{pmatrix} \end{array}$$

$$\begin{aligned} 3x_2 + 9x_3 &= 3 \\ 10 - 5(3) &= -5 \\ 5 - 5(1) &= 0 \\ -18 + 4(3) &= -6 \\ -10 + 4(1) &= -6 \\ -6x_3 &= -6 \\ 0 + 5(1) &= 5 \\ 1 - 3(1) &= -2 \end{aligned}$$

$$3(-2) + 9(1) = 3$$

$$2(5) + 6(-2) + 2(1) = 0$$

$$1(5) + 5(-2) + 10(1) = 5$$

