

$$\begin{pmatrix} 1 & 2 & 3 \\ 3 & -1 & 2 \\ 4 & -6 & -4 \end{pmatrix} = \begin{matrix} 5 \\ 8 \\ -2 \end{matrix}$$

$$\begin{pmatrix} 1 & 2 & 3 \\ 0 & -7 & -7 \\ 0 & -14 & -16 \end{pmatrix} = \begin{matrix} 5 \\ -7 \\ -22 \end{matrix}$$

$$\begin{pmatrix} 1 & 2 & 3 \\ 0 & 1 & 1 \\ 0 & -14 & -16 \end{pmatrix} = \begin{matrix} 5 \\ 1 \\ -22 \end{matrix}$$

$$\begin{pmatrix} 1 & 0 & 1 \\ 0 & 1 & 1 \\ 0 & 0 & -2 \end{pmatrix} = \begin{matrix} 3 \\ 1 \\ -8 \end{matrix}$$

$$\begin{pmatrix} 1 & 0 & 1 \\ 0 & 1 & 1 \\ 0 & 0 & 1 \end{pmatrix} = \begin{matrix} 3 \\ 1 \\ 4 \end{matrix}$$

$$\begin{pmatrix} 1 & 0 & 1 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{pmatrix} = \begin{matrix} -1 \\ -3 \\ 4 \end{matrix}$$

$a=-1$, $b=-3$, $c=4$

Answer: (A) 4