$$F_2 \to -5/11 \cdot F_2 \sim \left(\begin{array}{cccc|c} 1 & 3/5 & 1/5 & 2/5 & 1/5 \\ 0 & 1 & -13/11 & -1/11 & 7/11 \\ 0 & 19/5 & -7/5 & 21/5 & 13/5 \\ 0 & 19/5 & -7/5 & 21/5 & 13/5 \end{array}\right)$$

$$F_1 \to -3/5 \cdot F_2 + F_1 \sim \left(\begin{array}{cccc|c} 1 & 0 & 10/11 & 5/11 & -2/11 \\ 0 & 1 & -13/11 & -1/11 & 7/11 \\ 0 & 19/5 & -7/5 & 21/5 & 13/5 \\ 0 & 19/5 & -7/5 & 21/5 & 13/5 \end{array}\right)$$

$$F_3 \to -19/5\, F_2 + F_3 \sim \left(\begin{array}{cccc|c} 1 & 0 & 10/11 & 5/11 & -2/11 \\ 0 & 1 & -13/11 & -1/11 & 7/11 \\ 0 & 0 & 34/11 & 50/11 & 2/11 \\ 0 & 19/5 & -7/5 & 21/5 & 13/5 \end{array}\right)$$

$$F_4 \to -19/5\, F_2 + F_4 \sim \left(\begin{array}{cccc|c} 1 & 0 & 10/11 & 5/11 & -2/11 \\ 0 & 1 & -13/11 & -1/11 & 7/11 \\ 0 & 0 & 34/11 & 50/11 & 2/11 \\ 0 & 0 & 34/11 & 50/11 & 2/11 \end{array}\right)$$