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$$\frac{1}{5} R_2$$

$$R \left[\begin{array}{ccc|c} 1 & 2 & 3 & 5 \\ 0 & 1 & -\frac{3}{5} & -\frac{11}{5} \\ 0 & -2 & 1 & 4 \end{array} \right]$$

$$R_3 + 2R_2$$

$$R \left[\begin{array}{ccc|c} 1 & 2 & 3 & 5 \\ 0 & 1 & -\frac{3}{5} & -\frac{11}{5} \\ 0 & 0 & -\frac{1}{5} & -\frac{2}{5} \end{array} \right]$$

$$-5R_3$$

$$R \left[\begin{array}{ccc|c} 1 & 2 & 3 & 5 \\ 0 & 1 & -\frac{3}{5} & -\frac{11}{5} \\ 0 & 0 & 1 & 2 \end{array} \right]$$

$$R_2 + \frac{3}{5}R_3$$

$$R \left[\begin{array}{ccc|c} 1 & 2 & 3 & 5 \\ 0 & 1 & 0 & -1 \\ 0 & 0 & 1 & 2 \end{array} \right]$$

$$R_1 - 3R_3$$