

7  
(cont.)

$$\left[ \begin{array}{cccc|cccc} 1 & 0 & 1 & 1 & 1 & 0 & 0 & 0 \\ 0 & 1 & 1 & 0 & 0 & 1 & 0 & 0 \\ 0 & -1 & 0 & 1 & 1 & 0 & -1 & 0 \\ 0 & 0 & 1 & -1 & 0 & 1 & 0 & -1 \end{array} \right] \quad R_3 + R_4$$

$$\left[ \begin{array}{cccc|cccc} 1 & 0 & 1 & 1 & 1 & 0 & 1 & 1 \\ 0 & 1 & 1 & 0 & 0 & 1 & 0 & 0 \\ 0 & -1 & 0 & 1 & 1 & 0 & -1 & 0 \\ 0 & -1 & 1 & 0 & 1 & 1 & -1 & -1 \end{array} \right] \quad (R_2 + R_4) \frac{1}{2}$$

$$\left[ \begin{array}{cccc|cccc} 1 & 0 & 1 & 1 & 1 & 0 & 1 & 1 \\ 0 & 0 & 1 & 0 & \frac{1}{2} & 1 & -\frac{1}{2} & -\frac{1}{2} \\ 0 & -1 & 0 & 1 & 1 & 0 & -1 & 0 \\ 0 & -1 & 1 & 0 & 1 & 1 & -1 & -1 \end{array} \right] \quad \begin{array}{l} R_1 - R_2 \\ \text{Swap } R_3 \\ \text{Swap } R_4 \\ R_4 - R_2 \end{array}$$

$$\left[ \begin{array}{cccc|cccc} 1 & 0 & 0 & 1 & \frac{1}{2} & -1 & \frac{3}{2} & \frac{3}{2} \\ 0 & -1 & 0 & 1 & 1 & 0 & -1 & 0 \\ 0 & 0 & 1 & 0 & \frac{1}{2} & 1 & -\frac{1}{2} & -\frac{1}{2} \\ 0 & -1 & 1 & 0 & \frac{1}{2} & 0 & \frac{1}{2} & \frac{1}{2} \end{array} \right] \quad \begin{array}{l} R_2 - (R_4 - R_3) \text{ swap } R_4 \\ -(R_4 - R_3) \text{ swap } R_2 \end{array}$$

$$\left[ \begin{array}{cccc|cccc} 1 & 0 & 0 & 0 & -\frac{1}{2} & -2 & \frac{5}{2} & \frac{5}{2} \\ 0 & 1 & 0 & 0 & 0 & -1 & 0 & 0 \\ 0 & 0 & 1 & 0 & \frac{1}{2} & 1 & -\frac{1}{2} & -\frac{1}{2} \\ 0 & 0 & 0 & 1 & 1 & 1 & -1 & 0 \end{array} \right] \quad \begin{array}{l} R_1 - (R_2 - (R_4 - R_3)) \\ \leftarrow \text{Inverse} \end{array}$$

8 Did HW alone, not with anyone else, no HW party.