

TOPICS IN VLSI CAD

$$\begin{bmatrix} 8 & -2 & -2 & 0 \\ -2 & 8 & 0 & -2 \\ -2 & 0 & 8 & -2 \\ 0 & -2 & -2 & 8 \end{bmatrix} \begin{bmatrix} x_8 \\ x_9 \\ x_{10} \\ x_{11} \end{bmatrix} = \begin{bmatrix} 2 \\ 10 \\ 2 \\ 10 \end{bmatrix}$$

Iteration 1:

a) $8x_8 = 2 \quad x_8 = 0.25$

b) $-2 \times 0.25 + 8x_9 = 10$

$$8x_9 = 10 + 0.5$$

$$8x_9 = 10.5$$

$$x_9 = 10.5/8$$

c) $-2 \times 0.25 + 8x_{10} = 2$

$$8x_{10} = 2 + 0.5$$

$$x_{10} = 2.5/8$$

d)