

7.1

$$a) \begin{array}{c|cccc|c} x_k & -3 & -1 & 0 & 1 & 3 \\ y_k & -16 & 0 & -16 & 32 & 560 \end{array}$$

$$\begin{array}{c|cccc} -3 & -16 & & & \\ -1 & 0 & 8 & & \\ 0 & -16 & -16 & -8 & \\ 1 & 32 & 48 & 32 & 10 \end{array}$$

$$b) \quad 3 \quad 560 \quad 264 \quad 72 \quad 10 \quad 0$$

$$L_n(x) = -16 + 8(x+3) - 8(x+3)(x+1) + 10(x+3)(x+1)(x-0)$$

$$b) L_n(x) = -16 + 8(x+3) - 8(x+3)(x+1) + 10(x+3)(x+1)(x-0)$$

$$c) \begin{array}{c|cccc} x_k & -3 & -1 & 0 & 1 \\ y_k & -16 & 0 & -16 & -8 \end{array}$$

$$\begin{array}{c|cccc} -3 & -16 & & & \\ -1 & 0 & 8 & & \\ 0 & -16 & -16 & -8 & \\ 1 & -8 & 8 & 12 & 5 \end{array}$$

$$L_n(x) = -16 + 8(x+3) - 8(x+3)(x+1) + 5(x+3)(x+1)(x-0)$$