

7)

$$2x_1 + 2x_2 - x_3 = 8$$

$$5x_1 + 5x_2 + 3x_3 = 9$$

$$4x_2 - 2x_3 = 14$$

$$\left(\begin{array}{ccc|c} 2 & 2 & -1 & 8 \\ 5 & 5 & 3 & 9 \\ 0 & 4 & -2 & 14 \end{array} \right) \begin{array}{l} \frac{F_1}{2} \rightarrow F_1 // F_2 - 5F_1 \rightarrow F_2 \\ \end{array}$$

$$\left(\begin{array}{ccc|c} 1 & 1 & -\frac{1}{2} & 4 \\ 0 & 0 & \frac{11}{2} & -11 \\ 0 & 4 & -2 & 14 \end{array} \right) \begin{array}{l} F_2 \leftrightarrow F_3 // F_2 / 4 \rightarrow F_2 \\ \end{array}$$

$$\left(\begin{array}{ccc|c} 1 & 1 & -1/2 & 4 \\ 0 & 1 & -1/2 & 7/2 \\ 0 & 0 & 11/2 & -11 \end{array} \right) \begin{array}{l} \frac{2F_3}{11} \rightarrow F_3 // F_2 + \frac{1}{2}F_3 \rightarrow F_2 \\ \end{array}$$

$$\left(\begin{array}{ccc|c} 1 & 1 & -1/2 & 4 \\ 0 & 1 & 0 & 5/2 \\ 0 & 0 & 1 & -2 \end{array} \right) \begin{array}{l} F_1 + \frac{1}{2}F_3 \rightarrow F_1 // F_1 - F_2 \rightarrow F_1 \\ \end{array}$$

$$\left(\begin{array}{ccc|c} 1 & 0 & 0 & 1/2 \\ 0 & 1 & 0 & 5/2 \\ 0 & 0 & 1 & -2 \end{array} \right)$$

$$x_1 = \frac{1}{2}$$

$$x_2 = \frac{5}{2}$$

$$x_3 = -2$$

3)

	X	y	X · y	X ²
	1	7,4	7,4	1
	3	6,2	18,6	9
	5	4,5	22,5	25
	7	3,3	23,1	49
	9	1,8	16,2	81
	11	0	0	121
Suma	36	23,2	87,8	286
Prom	6	3,86		

$$q_1 = \frac{(6 \cdot 87,8) - (36 \cdot 23,2)}{(6 \cdot 286) - (36^2)} \approx -0,73$$

$$q_0 = 3,86 + 4,4 \approx 8,25$$