

$$\alpha = \begin{pmatrix} -0.0255 \\ 0.3223 \end{pmatrix} \quad \frac{1}{4}$$

$$a = e^{\alpha_1} = e^{-0.0255} = 0.9748$$

$$b = \alpha_2 = 0.3223 \quad \frac{1}{4}$$

$$\therefore y \approx 0.9748 \cdot e^{0.3223x}$$

$$(b) \text{ erro} = \begin{pmatrix} 1 \\ 2 \\ 3 \\ \vdots \\ 12 \\ 17 \end{pmatrix} - \begin{pmatrix} 0.9748 e^{0.3223 \cdot 0} \\ 0.9748 e^{0.3223 \cdot 1} \\ \vdots \\ 0.9748 e^{0.3223 \cdot 9} \end{pmatrix} \quad \frac{1}{4}$$

$$\approx 14.002 \quad \frac{1}{4}$$

$$(c) t = 2010 \text{ corresponde a } x = 2010 - 1998 = 12$$

$$\% \text{ usuarios em } 2010 \approx a \cdot e^{b \cdot 12} \approx 46.6222 \quad \frac{1}{2}$$

Ordem

$$3.4) \begin{array}{c|ccc} x & 0 & 1 & 2 \\ \hline 2 & -4 & & \\ & & 8 & \\ 3 & 4 & & -6 \\ & & -4 & \\ 4 & 0 & & \end{array} \quad \frac{1}{2}$$

$$q_2(x) =$$

$$= -4 + 8(x-2) - 6(x-2)(x-3)$$

$$q'(x) =$$

$$8 - 6[x-3 + x-2] \\ = 8 - 6[2x-5]$$