SEI / OVRS 7.7.2006

3) PODATKI

LETA	0	4	8	12	16	20	24	X
KARTONI	1.88	2.56	3.12	4.52	4.03	4.25	5.42	Y

LETOS: $\frac{336}{62} = 5.42$

$\bar{X} = (0+4+\dots)/7 = 12$ $\quad S_x^2 = \frac{(0-12)^2+(4-12)^2+\dots}{7} = 64$

$\bar{Y} = (1.88+2.56+\dots)/7 = 3.68$ $\quad S_y^2 = \frac{(1.88-3.68)^2+(2.56-3.68)^2+\dots}{7} = 1.283$

$S_{xy} = \frac{(0-12)(1.88-3.68)+(4-12)(2.56-3.68)+\dots}{7} = 8.517$

H_0: X in Y NISTA LINEARNO POVEZANA

H_1: X in Y STA LINEARNO POVEZANA

$R_{xy} = \frac{S_{xy}}{S_x S_y} = 0.9400$

$m = 7$

$\alpha = 5\%$

$T = \frac{R_{xy}\sqrt{m-2}}{\sqrt{1-R_{xy}^2}} = 6.159$

$t_{KRIT} = 2.571$

$1-\alpha/2 = 0.975$

$\nu = m-2 = 5$

} KER JE $T > t_{KRIT}$, H_0 ZAVRNEMO; X IN Y STA STATISTIČNO ZNAČILNO LINEARNO POVEZANA.

PARAMETRA LINEARNE REGRESIJE, OCENI:

$\hat{a} = \bar{Y} - \hat{b}\bar{X} = \underline{2.086}$ $\quad \hat{b} = \frac{S_{xy}}{S_x^2} = \underline{0.1331}$

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$Y = \hat{a} + \hat{b} \cdot 28 = 5.81$ RUMENIH KARTONOV NA TEKMO.