

PRIMER

84 OSNOVNOŠOLCEV JE PRI MATEMATIKI
PREJELO ZAKLJUČENO OCENO 1, 2, 3, 4, OZ. 5,
PRI LIKOVNI POUKU PA OCENO, MANJ USPEŠNO (MU),
USPEŠNO (U) OZ. ZELO USPEŠNO (ZU).

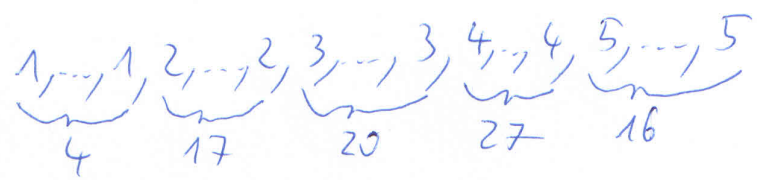
	MU	U	ZU	
1	2	1	1	4
2	4	6	7	17
3	2	10	8	20
4	4	15	8	27
5	2	8	6	16
	14	40	30	84 = n

MAJ BO $X =$ OCENA PRI MATEMATIKI
 $Y =$ OCENA PRI LIKOVNI POUKU

$S_{X,Y} = ?$

$\bar{R} = \frac{n+1}{2} = \frac{84+1}{2} = 42.5$

RANŽIRNA VRSTA ZA X:



$R^X(1) = \frac{0+4+1}{2} = 2.5, R^X(2) = \frac{4+21+1}{2} = 13, R^X(3) = \frac{21+41+1}{2} = 31.5$

$R^X(4) = \frac{41+68+1}{2} = 55, R^X(5) = \frac{68+84+1}{2} = 76.5$

$$\sigma_{R^X} = \sqrt{\frac{4 \cdot 2.5^2 + 17 \cdot 13^2 + 20 \cdot 31.5^2 + 27 \cdot 55^2 + 16 \cdot 76.5^2}{84} - 42.5^2}$$

$$= \sqrt{\frac{15443}{28}}$$

RAZREDNA VRSTA ZA Y:

$\underbrace{MU, \dots, MU}_{14}, \underbrace{U, \dots, U}_{40}, \underbrace{ZU, \dots, ZU}_{30}$

$$R^Y(MU) = \frac{0+14+1}{2} = 7.5, \quad R^Y(U) = \frac{14+54+1}{2} = 34.5, \quad R^Y(ZU) = \frac{54+84+1}{2} = 69.5$$

$$\sigma_{R^Y} = \sqrt{\frac{14 \cdot 7.5^2 + 40 \cdot 34.5^2 + 30 \cdot 69.5^2}{84} - 42.5^2} = \sqrt{495}$$

uporedba
 razredov
 $R^X(1)$ $R^Y(U)$
 ↓ ↓

$$K_{R^X, R^Y} = \frac{1}{84} \cdot \left(\begin{aligned} &2 \cdot 2.5 \cdot 7.5 + 1 \cdot 2.5 \cdot 34.5 + 1 \cdot 2.5 \cdot 69.5 + \\ &4 \cdot 13 \cdot 7.5 + 6 \cdot 13 \cdot 34.5 + 7 \cdot 13 \cdot 69.5 + \\ &2 \cdot 31.5 \cdot 7.5 + 10 \cdot 31.5 \cdot 34.5 + 8 \cdot 31.5 \cdot 69.5 + \\ &4 \cdot 55 \cdot 7.5 + 15 \cdot 55 \cdot 34.5 + 8 \cdot 55 \cdot 69.5 + \\ &2 \cdot 76.5 \cdot 7.5 + 8 \cdot 76.5 \cdot 34.5 + 6 \cdot 76.5 \cdot 69.5 \end{aligned} \right) - 42.5^2 =$$

$$= \frac{153411.5}{84} - 42.5^2 = \frac{3373}{168}$$

$$\rho_{X,Y} = \frac{K_{R^X, R^Y}}{\sigma_{R^X} \cdot \sigma_{R^Y}} = \frac{\frac{3373}{168}}{\sqrt{\frac{15443}{28}} \cdot \sqrt{495}} = 0.038$$

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GLEDAJ NA
 TABELU ORJE
 ZA NEZAVISNO
 POZITIVNO
 KORRELACIJO