

S 225 Nr. 2

y_i	0	1	2	3	4	5	6	Σ
$h(x_i)$	8	13	10	6	2	0	1	40
$f(x_i)$	$\frac{8}{40}$	$\frac{13}{40}$	$\frac{10}{40}$	$\frac{6}{40}$	$\frac{2}{40}$	0	$\frac{1}{40}$	1
$H(x_i)$	8	21	31	37	39	39	40	
$F(x_i)$	$\frac{8}{40}$	$\frac{21}{40}$	$\frac{31}{40}$	$\frac{37}{40}$	$\frac{39}{40}$	$\frac{39}{40}$	$\frac{40}{40}$	
$H_R(x_i)$	32	19	9	3	1	1	0	
$\bar{F}_R(x_i)$	$\frac{32}{40}$	$\frac{19}{40}$	$\frac{9}{40}$	$\frac{3}{40}$	$\frac{1}{40}$	$\frac{1}{40}$	0	

S 234 Nr. 2

	1.	7	3.	4
x_i	8	10	12	15
$h(x_i)$	3	4	3	2
x_i^2	64	100	144	225

$$n = 12$$

$$\mu = 10,83$$

$$x_2 = 10$$

$$S \Rightarrow \sigma^2 = \left(\frac{1}{12} \cdot \sum_{k=1}^4 x_k^2 \right) - \mu^2$$

$$\sigma = \sqrt{\frac{1}{12} \cdot [64 \cdot 3 + 100 \cdot 4 + 144 \cdot 3 + 225 \cdot 2] - 10,83^2}$$

$$\sigma \approx \sqrt{\frac{1}{12} \cdot 1474 - 10,83^2} \approx 2,34$$

MAD: $\frac{1}{n} \cdot \sum |x_1 - x_2| \cdot h(x_i)$

$$MAD = \frac{1}{12} \cdot \left\{ \begin{array}{l} |10 - 10| \cdot 4 \\ |12 - 10| \cdot 3 \\ |8 - 10| \cdot 3 \\ |15 - 10| \cdot 2 \end{array} \right\} = \frac{1}{12} \cdot (6 + 6 + 10)$$

$$MAD = \frac{22}{12} = \frac{11}{6} \approx 2^{-}$$