

KUIS UKURAN PENYEBARAN DATA

Nama :

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Soal 1

Tentukan jangkauan dari data berikut!

6, 4, 7, 10, 13, 18, 7, 12

Penyelesaian:

$$J = x_{maks} - x_{min}$$

$$= \boxed{} - \boxed{}$$

$$= \boxed{}$$

Jadi, jangkauannya adalah $\boxed{}$.

Soal 2

Tentukan simpangan rata-rata dari data berikut:

10, 44, 55, 56, 62, 65, 72, 76!

Penyelesaian:

$$\bar{x} = \frac{\boxed{} + 44 + \boxed{} + 56 + 62 + \boxed{} + 72 + \boxed{}}{\boxed{}} = \boxed{}$$

$$\text{Maka, } SR = \frac{1}{n} \sum_{i=1}^8 |x_i - \bar{x}|$$

$$\begin{aligned} &= \frac{1}{\boxed{}} (|10 - \boxed{}| + |\boxed{} - \boxed{}| + |55 - \boxed{}| + \\ &\quad |56 - \boxed{}| + |\boxed{} - \boxed{}| + |65 - \boxed{}| + \\ &\quad |72 - \boxed{}| + |76 - \boxed{}|) \end{aligned}$$

Soal 2

$$SR = \frac{1}{\boxed{}} (\boxed{} + 11 + 0 + \boxed{} + 7 + 10 + \boxed{} + 21)$$

$$= \frac{1}{\boxed{}} (\boxed{})$$

$$SR = \boxed{}$$

Jadi, simpangan rata-ratanya adalah $\boxed{}$.

Soal 3

Tentukan simpangan rata-rata dari data berikut!

Berat Badan (Kg)	Frekuensi
40 – 49	5
50 – 59	14
60 – 69	16
70 – 79	12
80 – 89	3
Total	50

Soal 3

Berat Badan (Kg)	f_i	x_i	$x_i \cdot f_i$	$\bar{x}$	$ x_i - \bar{x} $	$f_i x_i - \bar{x} $
40 – 49	5	44,5	222,5		18,8	
50 – 59	14		763			123,2
60 – 69	16	64,5			1,2	
70 – 79	12		894	=		134,4
80 – 89	3	84,5			21,2	63,6
Total	50					

$$SR = \frac{1}{n} \sum_{i=1}^k f_i |x_i - \bar{x}| = \frac{1}{\quad} (\quad) = \quad$$

Jadi, simpangan rata-ratanya adalah $\quad$.

Soal 4

Tentukan ragam dan simpangan baku dari data berikut:

11, 12, 13, 14, 15, 16, 17, 18

Penyelesaian:

$$\begin{aligned}\bar{x} &= \frac{11 + \boxed{} + 13 + \boxed{} + 15 + 16 + \boxed{} + \boxed{}}{\boxed{}} \\ &= \boxed{}\end{aligned}$$

Soal 4

x_i	$x_i - \bar{x}$	$(x_i - \bar{x})^2$
11	-3,5	12,25
12		6,25
13	-1,5	
14		0,25
15	0,5	
16	1,5	2,25
17		6,25
18	3,5	
$\sum x_i$		$\sum (x_i - \bar{x})^2 =$

Soal 4

Maka,

$$S^2 = \frac{1}{n} \sum_{i=1}^n (x_i - \bar{x})^2 = \frac{1}{\boxed{}} (\boxed{}) = \boxed{}$$

$$S = \sqrt{\frac{1}{n} \sum_{i=1}^n (x_i - \bar{x})^2} = \sqrt{\frac{1}{\boxed{}} (\boxed{})} = \frac{1}{\boxed{}} \sqrt{\boxed{}}$$

Jadi, ragamnya dan simpangan bakunya berturut-turut

adalah $\boxed{}$ dan $\frac{1}{\boxed{}} \sqrt{\boxed{}}$.

Soal 5

Tentukan ragam dan simpangan baku dari data berikut!

Berat Badan (Kg)	Frekuensi
40 – 49	5
50 – 59	14
60 – 69	16
70 – 79	12
80 – 89	3
Total	50

Soal 5

Berat Badan (Kg)	f_i	x_i	$x_i \cdot f_i$	$\bar{x}$	$x_i - \bar{x}$	$(x_i - \bar{x})^2$	$f_i \cdot (x_i - \bar{x})^2$
40 – 49	5	44,5	222,5	$\frac{3.165}{50}$ $=$	18,8	353,44	1.767,2
50 – 59	14		763			77,44	
60 – 69	16	64,5			1,2		23,04
70 – 79	12		894			125,44	
80 – 89	3	84,5			21,2		1.348,32
Total	50		3.165			1.052,2	

$$S^2 = \frac{1}{n} \sum_{i=1}^k f_i (x_i - \bar{x})^2$$

$$= \frac{1}{50} (1.052,2) =$$

$$S = \sqrt{\frac{1}{n} \sum_{i=1}^k f_i (x_i - \bar{x})^2} = \sqrt{\frac{1}{50} (1.052,2)} = \frac{4}{50} \sqrt{1.052,2}$$

Jadi, ragamnya 114,56 dan simpangan bakunya $\frac{4}{50} \sqrt{1.052,2}$.