

Sukatan Serakan Data Tak Terkumpul

Sukatan Serakan

Standard Pembelajaran

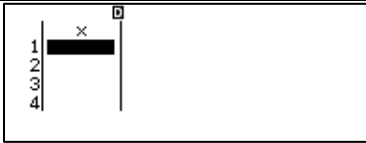
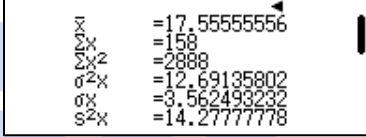
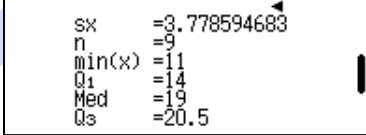
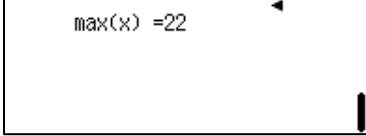
- 8.2.1 Menentukan julat, julat antara kuartil, varians dan sisihan piawai sebagai sukatan untuk menghuraikan serakan bagi data tak terkumpul.



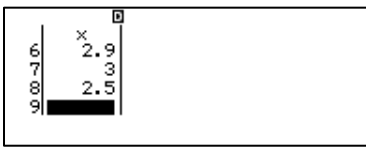
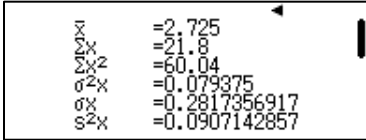
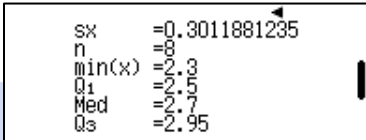
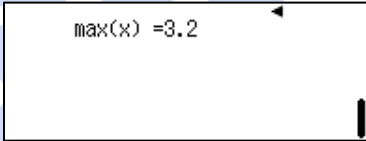
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Menentukan julat, julat antara kuartil, varians dan sisihan piawai sebagai sukatan

- Tentukan julat dan julat antara kuartil bagi setiap set data yang berikut.
a) 20, 11, 20, 14, 22, 17, 14, 19, 21

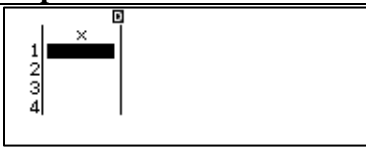
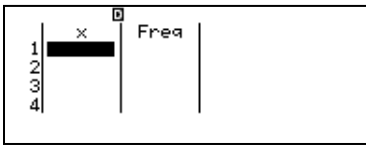
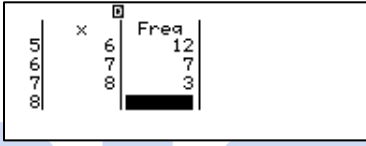
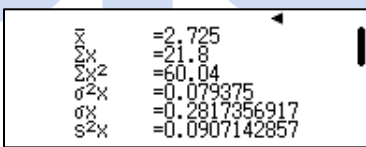
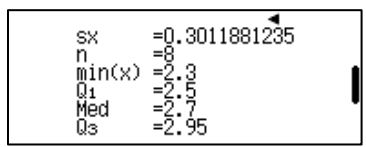
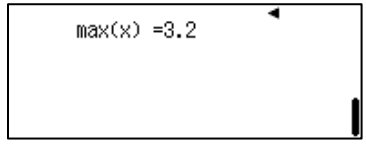
Arahan	Paparan Skrin Kalkulator
MENU 6 1	
Masukkan data yang diberi. 2 0 = 1 1 = 2 0 = 1 4 = 2 2 = 1 7 = 1 4 = 1 9 = 2 1 =	
Dapatkan nilai sukatan serakan bagi data tersebut. OPTN 3 Paparkan halaman berikutnya. ▼ ▼	   Daripada paparan, Nilai terkecil = 11 Nilai terbesar = 22 Kuartil pertama = 14 Kuartil ketiga = 20.5 maka, julat = $22 - 11 = 11$ dan julat antara kuartil = $20.5 - 14 = 6.5$

b) 2.8, 3.2, 2.3, 2.5, 2.6, 2.9, 3.0, 2.5

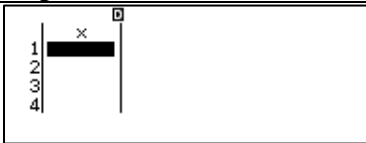
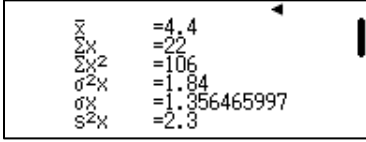
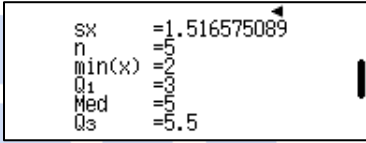
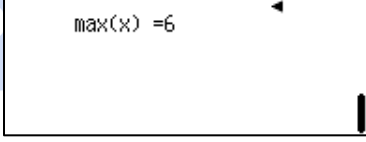
Arahan	Paparan Skrin Kalkulator
MENU 6 1	
Masukkan data yang diberi. 2 0 = 1 1 = 2 0 = 1 4 = 2 2 = 1 7 = 1 4 = 1 9 = 2 1 =	
Dapatkan nilai sukatan serakan bagi data tersebut. OPTN 3 Paparkan halaman berikutnya. ▼ ▼	   Daripada paparan, Nilai terkecil = 2.3 Nilai terbesar = 3.2 Kuartil pertama = 2.5 Kuartil ketiga = 2.95 maka, julat = $3.2 - 2.3 = 0.9$ dan julat antara kuartil = $2.95 - 2.5 = 0.45$

c)

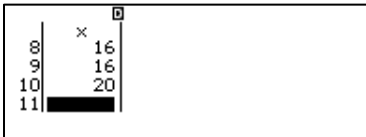
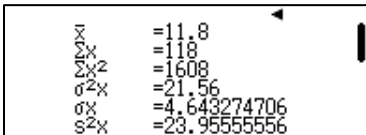
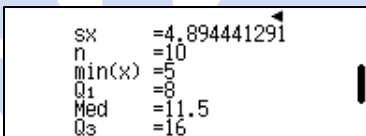
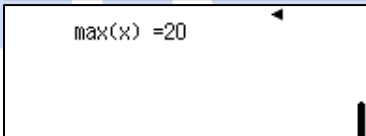
Skor	2	3	4	5	6	7	8
Bilangan murid	3	5	6	8	12	7	3

Arahan	Paparan Skrin Kalkulator
MENU 6 1	
Tambahkan lajur 'Frequency' SHIFT MENU ▼ 3 1	
Masukkan data yang diberi. 2 = 3 = 4 = 5 = 6 = 7 = 8 = ▶ ▲ ▲ ▲ ▲ ▲ ▲ ▲ 3 = 5 = 6 = 8 = 1 2 = 7 = 3 =	
Dapatkan nilai sukatan serakan bagi data tersebut. OPTN 3	
Paparkan halaman berikutnya. ▼ ▼	 
Daripada paparan, Nilai terkecil = 2.3 Nilai terbesar = 3.2 Kuartil pertama = 2.5 Kuartil ketiga = 2.95 maka, julat = $3.2 - 2.3 = 0.9$ dan julat antara kuartil = $2.95 - 2.5 = 0.45$	

2. Tentukan min, varians dan sisihan piawai bagi setiap set data yang berikut.
a) 2, 4, 5, 5, 6

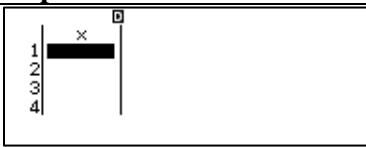
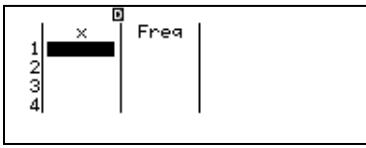
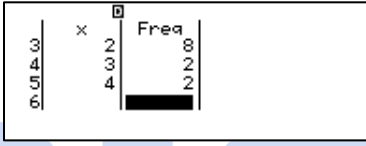
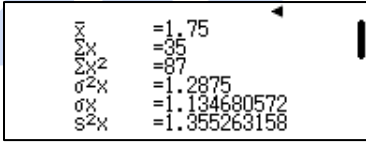
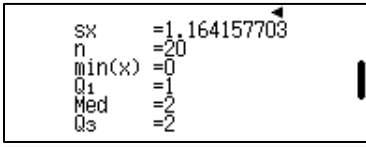
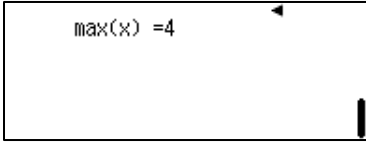
Arahan	Paparan Skrin Kalkulator
MENU 6 1	
Masukkan data yang diberi. 2 = 4 = 5 = 5 = 6 =	
Dapatkan nilai sukatan serakan bagi data tersebut. OPTN 3	
Paparkan halaman berikutnya. v v	 
	Daripada paparan, Min, $\bar{x} = 4.4$ Varians, $\sigma^2 = 1.84$ atau Kaedah Alternatif Guna formula dan rujuk pada paparan kalkulator; $\sigma^2 = \frac{\sum x^2}{N} - \bar{x}^2$ $\sigma^2 = \frac{106}{5} - 4.4^2$ $\sigma^2 = 21.2 - 19.36$ $\sigma^2 = 1.84$ Sisihan piawai, $\sigma = 1.356$

b) 5, 7, 8, 8, 10, 13, 15, 16, 16, 20

Arahan	Paparan Skrin Kalkulator
MENU 6 1	
Masukkan data yang diberi. 5 = 7 = 8 = 8 = 1 0 = 1 3 = 1 5 = 1 6 = 1 6 = 2 0 =	
Dapatkan nilai sukatan serakan bagi data tersebut. OPTN 3 Paparkan halaman berikutnya. ▼ ▼	   Daripada paparan, Min, $\bar{x} = 11.8$ Varians, $\sigma^2 = 21.56$ atau <u>Kaedah Alternatif</u> Guna formula dan rujuk pada paparan kalkulator; $\sigma^2 = \frac{\sum x^2}{N} - \bar{x}^2$ $\sigma^2 = \frac{1608}{10} - 11.8^2$ $\sigma^2 = 160.8 - 139.24$ $\sigma^2 = 21.56$ Sisihan piawai, $\sigma = 4.643$

c)

Skor	0	1	2	3	4
Bilangan murid	3	5	8	2	2

Arahan	Paparan Skrin Kalkulator
MENU 6 1	
Tambahkan lajur 'Frequency' SHIFT MENU ▼ 3 1	
Masukkan data yang diberi. 0 = 1 = 2 = 3 = 4 = ▶ ▲ ▲ ▲ ▲ ▲ 3 = 5 = 8 = 2 = 2 =	
Dapatkan nilai sukatan serakan bagi data tersebut. OPTN 3	
Paparkan halaman berikutnya. ▼ ▼	 
	Daripada paparan, Min, $\bar{x} = 1.75$ Varians, $\sigma^2 = 1.2875$ atau Kaedah Alternatif Guna formula dan rujuk pada paparan kalkulator; $\sigma^2 = \frac{\sum fx^2}{N} - \bar{x}^2$



	$\sigma^2 = \frac{87}{20} - 1.75^2$ $\sigma^2 = 4.35 - 3.0625$ $\sigma^2 = 1.2875$ Sisihan piawai, $\sigma = 1.134$
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