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Kelas : C Informatika

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Kelas : C

1.

No	Nilai	f	xi	xi.fi	f.kum
1.	48 - 52	1	50	50	1
2.	53 - 57	13	55	715	14
3.	58 - 62	2	60	120	16
4.	63 - 67	5	65	325	21
5.	68 - 72	8	70	560	29
6.	73 - 77	7	75	525	36
7.	78 - 82	7	80	560	43
8.	83 - 87	2	85	170	45
9.	88 - 92	13	90	1170	58
10.	93 - 97	2	95	190	60
		$\Sigma f = 60$		$\Sigma x_i f_i = 4385$	

Mean

$\bar{X} = \frac{\Sigma(x_i f_i)}{\Sigma f}$

$= \frac{4385}{60} : 5 = \frac{877}{12}$

$= 73{,}08$

Median

Letak $= 60/2 = 30 \rightarrow$ ada pada F.kum 36 kelas (73-77)

$Me = Tb + \left(\frac{\frac{n}{2} - fks}{fi}\right) P$

$= 72{,}5 + \left(\frac{30 - 29}{7}\right) 5$

$= 72{,}5 + \frac{1}{7} \cdot 5$

$= 72{,}5 + \frac{5}{7}$

$= 72{,}5 + 0{,}71$

$= 73{,}21$

Modus

$Mo = Tb + \left(\frac{d_1}{d_1 + d_2}\right) P$

Data dengan Frekuensi terbanyak : 13
Pada rentan (53-57) dan (88-92)

Modus 1 :

$Mo_1 = Tb + \left(\frac{d_1}{d_1 + d_2}\right) P$ $\quad d_1 = 13 - 1 = 12$, $d_2 = 13 - 2 = 11$

$= 52{,}5 + \left(\frac{12}{12 + 11}\right) 5$

$= 52{,}5 + \frac{12}{23} \cdot 5$

$= 52{,}5 + \frac{60}{23}$

$= 52{,}5 + 2{,}6$

$= 55{,}1$

Modus 2 :

$Mo_2 = Tb + \left(\frac{d_1}{d_1 + d_2}\right) P$ $\quad d_1 = 13 - 2 = 11$, $d_2 = 13 - 2 = 11$

$= 87{,}5 + \left(\frac{11}{11 + 11}\right) 5$

$= 87{,}5 + \frac{11}{22} \cdot 5$

$= 87{,}5 + \frac{55}{22}$

$= 87{,}5 + 2{,}5$

$= 90$

Desil 7

$$D_7 = Tb + \left(\frac{7}{10}n - Fks\right)P$$
$$\overline{Fd}$$

Letak kelas : $\frac{i}{10}n = \frac{7}{10}60 = 42 \rightarrow$ ada pada Fk 43 kelas (78-82)

$$D_7 = 77,5 + \left(\frac{7}{10}\frac{6}{60} - 36\right)5$$
$$7$$

$$= 77,5 + \left(\frac{42-36}{7}\right)5$$

$$= 77,5 + \frac{6}{7}.5$$

$$= 77,5 + \frac{30}{7}$$

$$= 77,5 + 4,28$$

$$= 81,78$$

Standar Deviasi

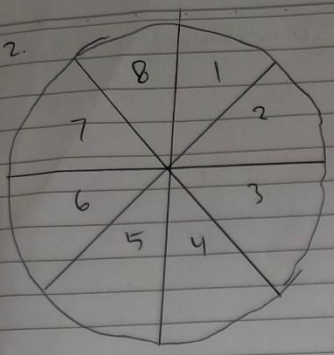
$$SD = \sqrt{\frac{\sum Fi(xi - \bar{x})^2}{n}}$$

	$x_i - \bar{x}$		kuadratkan $(x_i - \bar{x})^2$		$\times F$ $F(x_i - \bar{x})^2$
1.	50 - 73,08 = -23,08	→	532,69	→	532,69
2.	55 - 73,08 = -18,08	→	326,89	→	4249,57
3.	60 - 73,08 = -13,08	→	171,09	→	342,18
4.	65 - 73,08 = -8,08	→	65,29	→	326,45
5.	70 - 73,08 = -3,08	→	9,49	→	75,92
6.	75 - 73,08 = 1,92	→	3,69	→	25,83
7.	80 - 73,08 = 6,92	→	47,85	→	334,95
8.	85 - 73,08 = 11,92	→	142,09	→	284,18
9.	90 - 73,08 = 16,92	→	286,29	→	3721,77
10.	95 - 73,08 = 21,92	→	480,49	→	960,98 +
					10.854,52

$$SD = \sqrt{\frac{10.854,52}{60}}$$

$$= \sqrt{180,90} \approx 13,45$$

2.



Peluang jatuh ganjil atau merah

$n(a) = \{1,3,5,7\} = 4$ $\quad n(s) = 8$

$n(b) = \{3,7\} = 2$

$P(A \cup B) = P(A) + P(B)$

$= \frac{4+2}{8}$

$= \frac{6}{8} : 2 = \frac{3}{4} = 75\%$

3. Dua dadu diundi. Peluang muncul >10 adalah

$n(a) = \{(5,6),(6,5),(6,6)\} = 3$

$n(s) = 6 \cdot 6 = 36$

$P = \frac{n(a)}{n(s)} = \frac{3}{36} : 3 = \frac{1}{12}$

4. Ali melakukan kendangan, Peluang gol dalam sekali kendangan 0,6. Ali melakukan 3 kali kendangan. Peluang untuk 2 gol adalah

$P = 0,6$

$n = 3$

$r = 2$

$Q = 1 - P = 1 - 0,6 = 0,4$

rumus binomial $= P = \frac{n!}{(n-r)!r!} p^r q^{n-r}$

$= P = \frac{3!}{(3-2)!2!} (0,6)^2 (0,4)^{3-2}$

$= \frac{3 \times 2!}{1! 2!} \times 0,36 \times 0,4$

$= 3 \times 0,36 \times 0,4$

$= 1,08 \times 0,4$

$= 0,432$

5. Dari 7 siswa berprestasi ~~di~~ ada 4 laki-laki dan 3 perempuan. Dipilih 3 orang untuk maju ke depan. Peluang terpilih 2 laki-laki 1 perempuan

$$n(a) = {}_4C_2 = \frac{4!}{(4-2)!2!} = \frac{4\times3\times2!}{2!2!} = \frac{4.3}{2} = \frac{12}{2} = 6$$

$$n(b) = {}_3C_1 = \frac{3!}{(3-1)!1!} = \frac{3\times2!}{2!\times1!} = \frac{3}{1} = 3$$

$$n(s) = {}_7C_3 = \frac{7!}{(7-3)!3!} = \frac{7\times6\times5\times4!}{4!\,3!} = \frac{7\times\overset{3}{6}\times5}{3\times\cancel{2}} = \frac{105}{3} = 35$$

$$P = \frac{n(a)\times n(b)}{n(s)} = \frac{6\times3}{35} = \frac{18}{35}$$