Latihan 2

1. Diket data : 10, 12, 15, 16, 20, 12

Tentukan :

a. Modus dari data diatas, dan jelaskan!

Jawab

- Modus data diatas ada adalah 12 dan 15. Karena angka tersebut muncul 2 kali (sering muncul).

b. Jumlah dari median dan kuartil 3 !

Jawab

- Median

12, 12, (15), (15), 16, 20

$M = \frac{15+15}{2} = \frac{30}{2} = 15$

- Kuartil 3 (Q_3)

Banyak data : 6

Data terkecil : 12

$Q_1 = \frac{n+1}{4} = \frac{6+1}{4} = \frac{7}{4} = 1,75 = 2 \Rightarrow Q_1 = 12$

$Q_2 = 2\frac{(n+1)}{4} = \frac{2(6+1)}{4} = 2\left(\frac{7}{4}\right) = 2(1,75) = 3,5 = 3 \quad Q_2 = 15$

$Q_3 = 3\left(\frac{n+1}{4}\right) = \frac{3(6+1)}{4} = 3\left(\frac{7}{4}\right) = 3(1,75) = 5,25 = 5 \quad Q_3 = 15$

2.

Jml Ketidakhadiran (Dalam Hari)	Frekuensi
1 - 3	15
4 - 6	12
7 - 9	7
10 - 12	5
13 - 15	1
Σ	40

Tentukan selisih antara nilai tengah dengan jumlah kuartil 1 dan 3!

Tb = 0,5 - 0,5 = 0,5

fmed = 15

fkum = 0

p = 3

$*Me = 0,5 + \left(\frac{15-0}{20}\right) * 3$

$\Rightarrow 0,5 + \left(\frac{15}{20}\right) * 3$

$= 0,5 + \left(\frac{3}{4}\right) * 3$

$= 0,5 + 2,25 \Rightarrow 2,75$

Jawab

- Nilai Tengah / Median:

$\frac{40}{2} = 20$

VISION

$Q_1 = \frac{1}{4} \cdot 40 = 10$

$Tb = 0,5 \quad f_1 = 15$

$fk = 0 \quad p = 3$

$Q_1 = tb + \left(\frac{\frac{1}{4}n - fk}{f_1}\right) \cdot p$

$= 0,5 + \left(\frac{\frac{1}{4} \cdot 40 - 0}{15}\right) \cdot 3$

$= 0,5 + \left(\frac{10}{15}\right) \cdot 3$

$= 0,5 + 2,01 \Rightarrow 2,51$

$Q_3 = \frac{3}{4} \cdot 40 = 30$

$Tb = 6,5 \quad f_1 = 7$

$fk = 12 \quad p = 3$

$Q_3 = tb + \left(\frac{\frac{3}{4}n - fk}{f_1}\right) \cdot p$

$= 6,5 + \left(\frac{\frac{3}{4} \cdot 30 - 12}{7}\right) \cdot 3$

$= 6,5 + \left(\frac{\frac{3}{4} \times 18}{7}\right) \cdot 3$

$= 6,5 + \left(\frac{18}{7}\right) \cdot 3$

$= 6,5 + 5,78 \Rightarrow 12,28$