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Prdi: Sistem Informasi

UTS Statistik

1.

$$n = \frac{N}{1 + N e^2}$$

$$n = \frac{1230}{1 + (0,01)^2}$$

$$= \frac{1230}{1 + 1230 \times 0,0001}$$

$$= \frac{1230}{1 + 0,123}$$

$$= \frac{1230}{1,123}$$

$$n = 1095,11$$

$$n = \frac{N}{1 + N e^2}$$

$$= \frac{1230}{1 + 1230 \cdot (0,025)^2}$$

$$= \frac{1230}{1 + 1230 \times 0,0025}$$

$$= \frac{1230}{1 + 3,075}$$

$$= \frac{1230}{4,075}$$

$$n = 302,11$$

2.

| Nilai | Frekuensi |
|-------|-----------|
| 9 | 2 |
| 6 | 3 |
| 7 | 1 |
| 3 | 4 |
| | 10 |

$$M = X_1 \cdot F_1 + X_2 \cdot F_2 + X_3 \cdot F_3 + X_4 \cdot F_4$$

$$= 9 \cdot 2 + 6 \cdot 3 + 7 \cdot 1 + 3 \cdot 4$$

$$= 18 + 18 + 7 + 12$$

$$= 55$$

$$\frac{55}{10} = 5,5$$

$$3. Q_1 = \frac{1}{4} (n+1) = \frac{8+1}{4} = \frac{9}{4} = 2,25 = \frac{153 + 155}{2} = 154,11$$

$$Q_2 = \frac{1}{2} (n+1) = 2 \left(\frac{8+1}{4} \right) = 4,5 = \frac{156 + 157}{2} = 156,5,11$$

$$Q_3 = \frac{3}{4} (n+1) = 3 \left(\frac{8+1}{4} \right) = 6,75 = \frac{158 + 163}{2} = 160,5,11$$