Deliverable

3.5 9.1 9.5 8.3 8.2 8.7 4.4 6.7 2.5 4.4 6.7

in order

2.5, 3.5, 4.4, 4.4, 6.7, 6.7, 8.2, 8.3, 8.7, 9.1, 9.5

↑ Median

Lowest number 2.5

1st quartile 4.4

Median 6.7

3rd quartile 8.7

Highest number 9.5

Mean = {2.5 + 3.5 + 4.4×2 + 6.7×2 + 8.2 + 8.3 + 8.7 + 9.1 + 9.5} ÷ 11

= {6.0 + 8.8 + 13.4 + 8.2 + 17.0 + 9.1 + 9.5} ÷ 11

= {6.0 + 17.0 + 13.4 + 17.0 + 18.6} ÷ 11

= {6.0 + 17.0 + 32.0 + 17.0} ÷ 11

= 72 ÷ 11 = $\frac{72}{11}$

$11\overline{)72}\ 6.5$, 66, 60, 55

1. $(\frac{25}{10} - \frac{72}{11})^2 = (\frac{275}{110} - \frac{720}{110})^2 = (-\frac{445}{110})^2$

2. $(\frac{35}{10} - \frac{72}{11})^2 = (\frac{385}{110} - \frac{720}{110})^2 = (\frac{-335}{110})^2$

3. $(\frac{4.4}{10} - \frac{72}{11})^2 = (\frac{484}{110} - \frac{720}{110})^2 = (-\frac{336}{110})^2$

4. $(\frac{44}{10} - \frac{72}{11})^2 = (\frac{484}{110} - \frac{720}{110})^2 = (-\frac{336}{110})^2$

5. $(\frac{67}{10} - \frac{72}{11})^2 = (\frac{737}{110} - \frac{720}{110})^2 = (\frac{17}{110})^2$

6. $(\frac{67}{10} - \frac{72}{11})^2 = (\frac{737}{110} - \frac{720}{110})^2 = (\frac{17}{110})^2$

7. $(\frac{82}{10} - \frac{72}{11})^2 = (\frac{902}{110} - \frac{720}{110})^2 = (\frac{182}{110})^2$

8. $(\frac{83}{10} - \frac{72}{11})^2 = (\frac{913}{110} - \frac{720}{110})^2 = (\frac{193}{110})^2$

9. $(\frac{87}{10} - \frac{72}{110})^2 = (\frac{957}{110} - \frac{720}{110})^2$

$= (\frac{237}{110})^2$

10. $(\frac{91}{10} - \frac{72}{11})^2 = (\frac{1001}{110} - \frac{720}{110})^2$

$= (\frac{281}{110})^2$

11. $(\frac{95}{10} - \frac{72}{11})^2 = (\frac{1045}{110} - \frac{720}{110})^2$

$= (\frac{325}{110})^2$

From 1 - 11,

$$\text{Sum} = \frac{(-445)^2 + (-335)^2 + (-236)^2 + (-236)^2 + 17^2 + 17^2 + 182^2 + 193^2 + 237^2 + 281^2 + 325^2}{110^2}$$

$$= \frac{733348}{12100},$$

$(-445)^2 = 198025$

$(-335)^2 = 112225$

$(-236)^2 = 55696 \times 2 = 111392$

$(17)^2 = 289 \times 2 = 578.$

$(182)^2 = 33124$

$(193)^2 = 37249$

$(237)^2 = 56169$

$(281)^2 = 78961$

$+) \quad (325) = 105625$

733038

$\frac{733348}{12100} \div 11 = 5.5097520.$

variance : 5.5097520