

$$= \sqrt{\frac{2676}{200}} \\ = \sqrt{13.38} = 3.66$$

① Coefficient of variation for group A

$$\Rightarrow \frac{S.D.}{\text{Mean}} \times 100\%$$

$$= \frac{24.86}{4.17} \times 100\% \\ = 59.61\% \approx 60\%$$

coefficient of variation for group B

$$\frac{S.D.}{\text{Mean}} \times 100\%$$

$$= \frac{2.5}{9} \times 100\% \\ = 27.78\% \approx 28\%$$

② Group A

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STA 132 assignment

Class interval	Group A	Group B	f
1-5	0	2	0
6-10	7	7	28
11-15	10	7	70
16-20	2	20	40
21-25	1	16	16
26-30	5	10	50
31-35	4	4	16
Mean	29	63	220

① Mean of group A $\Rightarrow \frac{29}{7} = 4.14$

Mean of group B $\Rightarrow \frac{63}{7} = 9$

$$\begin{aligned}
 \text{Standard deviation of group A} &= \sqrt{\frac{\sum f(x-\bar{x})^2}{\sum f}} \\
 &= \sqrt{\frac{220(29-4.14)^2}{220}} \\
 &= \sqrt{\frac{220 \times 618.096}{220}} \\
 &= \sqrt{\frac{135.964312}{220}} = \sqrt{618.0196} \\
 &= 24.86
 \end{aligned}$$

$$\begin{aligned}
 \text{Standard deviation of group B} &\Rightarrow \sqrt{\frac{\sum f(x-\bar{x})^2}{\sum f}} \\
 &= \sqrt{\frac{220(63-9)^2}{220}} \\
 &= \sqrt{\frac{220 \times 2916}{220}}
 \end{aligned}$$