3.If μ= 55, σ_{4a}= 4, $\sigma_{4\beta}$=10, σ_4 = *c* 15, In this which is better?

Given:
Mean (μ) = 55
Standard deviation:

- $\sigma_a = 4$
- $\sigma_\beta = 10$
- $\sigma c = 15$

Which is better?

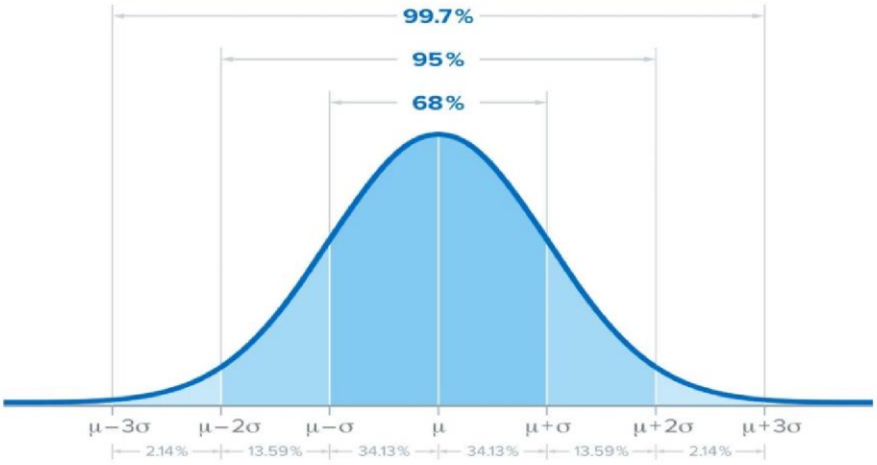
To decide which is better, we compare **standard deviation (σ)**.

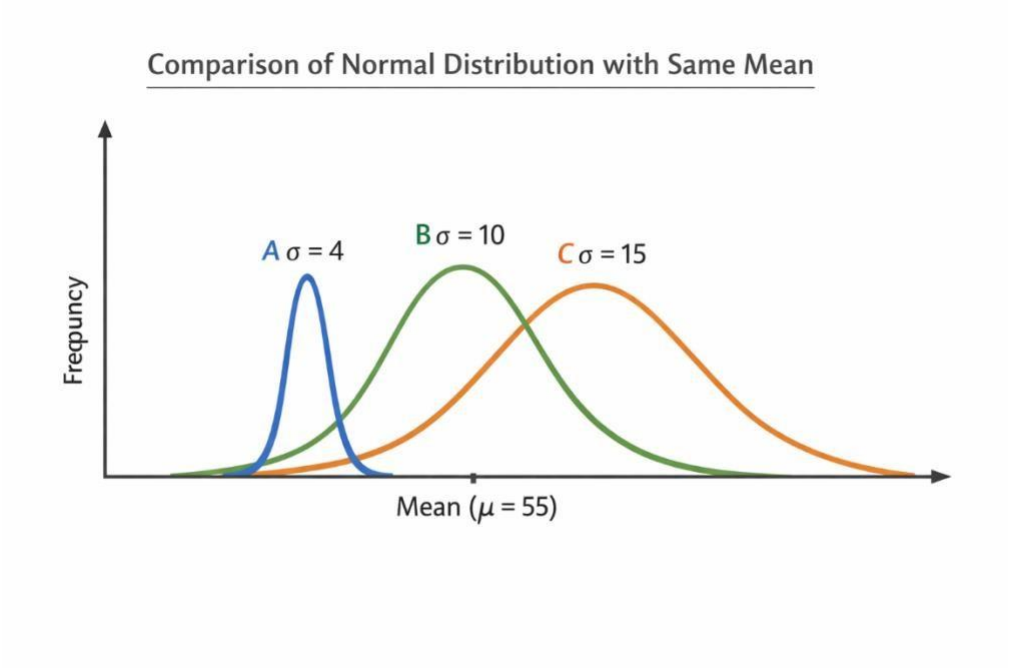
Standard deviation tells us how much the values deviate (spread) from the mean.

- **Small σ → values are close to mean → more consistent → better**
- **Large σ → values are far from mean → less consistent**

Comparison

Case	Mean (μ)	Standard Deviation (σ)	Interpretation
A	55	4	Very less variation, highly consistent
B	55	10	Moderate variation
C	55	15	High variation, less consistent





Conclusion

Since all have same mean (55), we choose the one with **lowest standard deviation**.

σ_a = 4 is better
because it has the **least variation** and values are closer to the mean.