



- 1. Gaussian distribution.
- 2. Symmetrical.
- 3.  $\text{mean} = \text{median}$   $\approx$
- 4. Area under curve = 1.  $\text{SD}$
- 5. (Empirical Rule)  $(3\sigma) / 68-95-99.7\%$

- ①  $\text{mean} > \text{median}$   
→ Right / +ve skewness
- ②  $\text{median} > \text{mean}$   
→ Left / -ve skewness
- ↑  
outliers

6. mean = centre

N.P

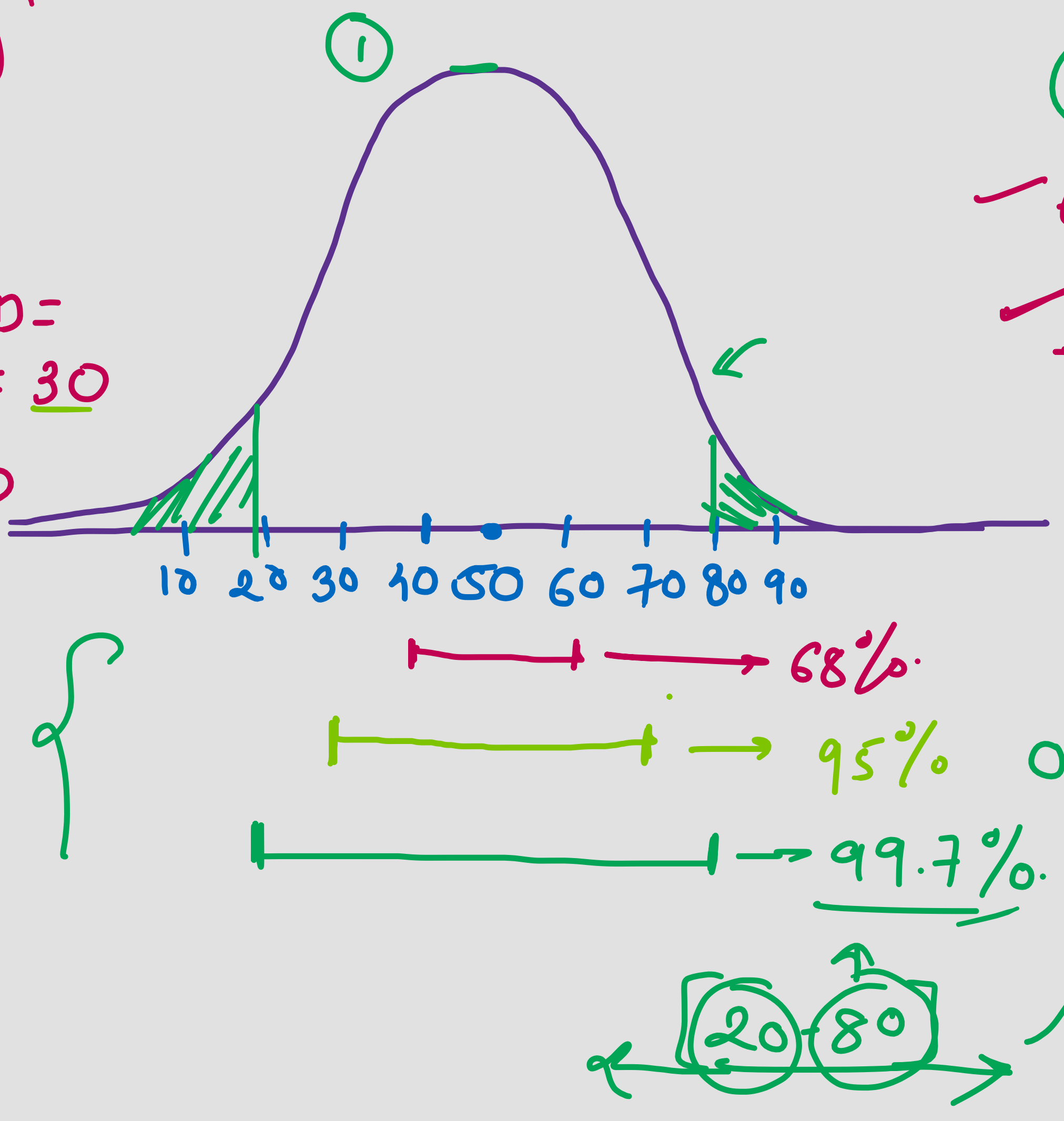
- 68% →  $\pm 1 \text{SD}$
- 95% →  $\pm 2 \text{SD}$
- 99.7% →  $\pm 3 \text{SD}$

(outliers)  
 $1 \times 10 = 10$   
 $95 = 2 \times 10 = 20$   
 $99.7 = 3 \times 10 = 30$

mean = 50 } range.  
~~SD = 10~~

Lower =  $\text{mean} - \text{SD} = 50 - 20 = 30$   
 Upper =  $\text{mean} + \text{SD} = 50 + 20 = 70$

$50 - 30 = 20$   
 $50 + 30 = 80$



$$\frac{x - \bar{x}}{s}$$

Normal distributed (Z-score) → Standard Normal distribution (mean = 0, SD = 1)

