

3-3

Range = Max - Min

Standard Deviation

$$s = \sqrt{\frac{n \sum (x^2) - (\sum x)^2}{n(n-1)}}$$

p110

5. Range 79-34

45

x	x ²
51	2601
63	3969
36	1296
43	1849
34	1156
62	3844
73	5329
39	1521
53	2809
79	6241
<u>533</u>	<u>30615</u>

$$S = \sqrt{\frac{n \sum(x^2) - (\sum x)^2}{n(n-1)}}$$

$$S = \sqrt{\frac{10(30615) - (533)^2}{10(10-1)}}$$

$$S = \sqrt{\frac{306,150 - 284,089}{90}}$$

$$S = \sqrt{\frac{22061}{90}}$$

$$S = \sqrt{245.12}$$

$$S = 15.7$$

Variance S²

245.12

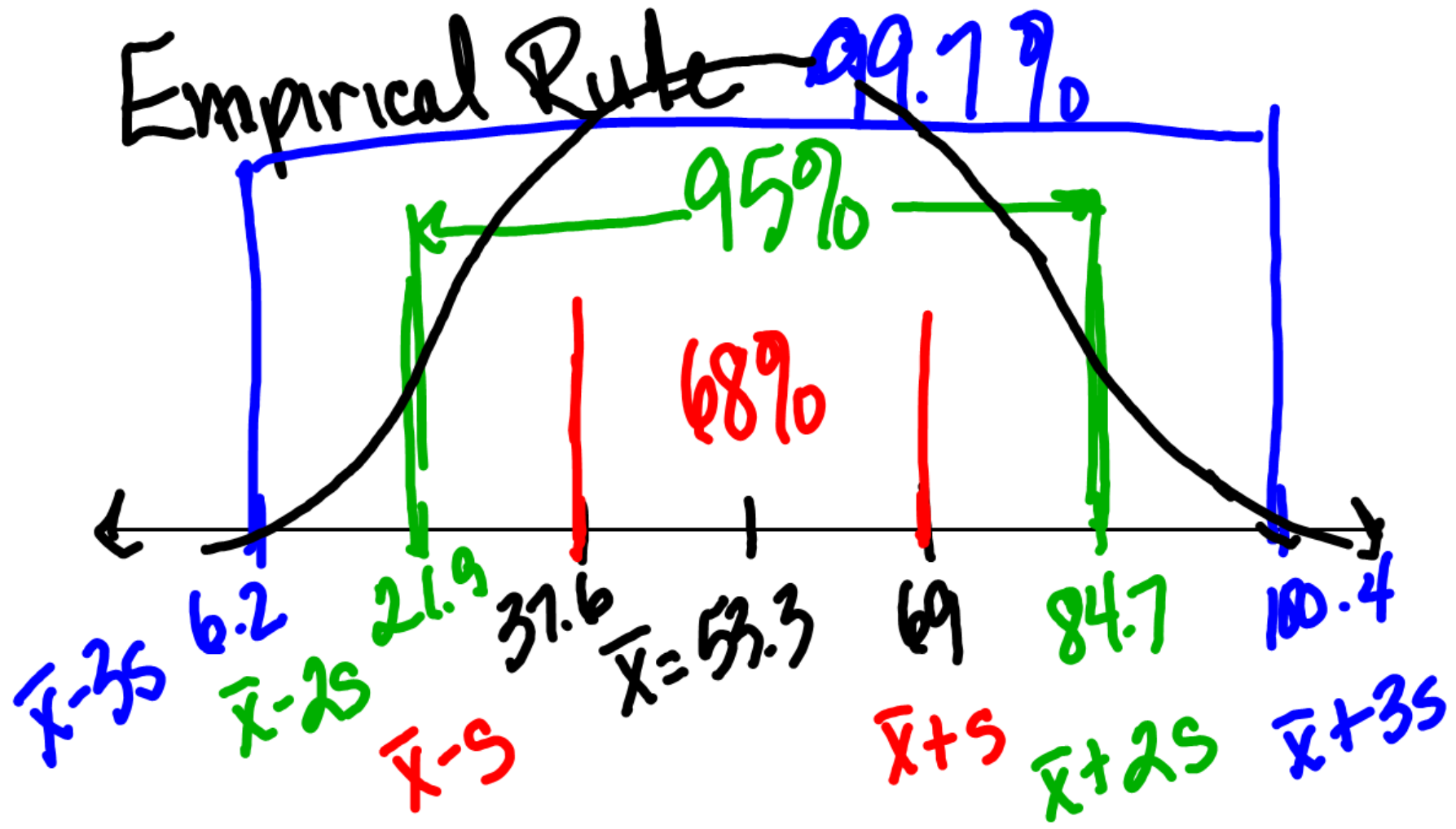
Population Standard Deviation

$$\sigma = \sqrt{\frac{\sum (x - \mu)^2}{N}}$$

$$b. \quad \bar{x} = 53.3$$

$$s = 15.7$$

$$n = 245.2$$



$s = 15.7$