

### 3. Standard deviation

data given

10.0

10.0

0.0

1.0

2.0

7.0

mean = 5.0

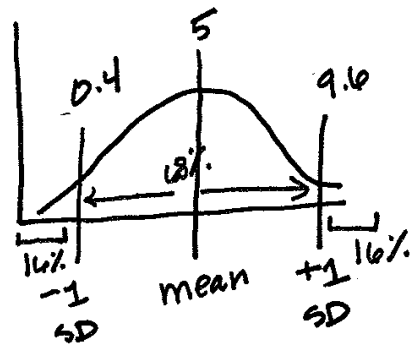
SD = 4.6

Q: between what values do 68% of data points lie?

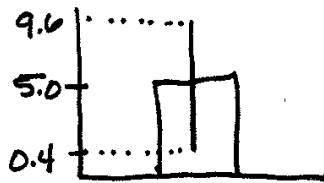
0.4  $\longleftrightarrow$  9.6

Q: what % of the data is less than 0.4?

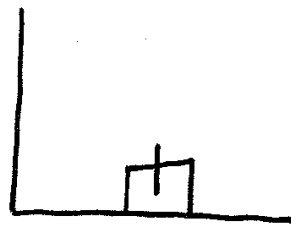
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Q graph it  $\rightarrow$



and compare to this  $\rightarrow$



- 1) look for overlap  
yes  $\rightarrow$  NOT (probably) different  
NO  $\rightarrow$  (probably) different