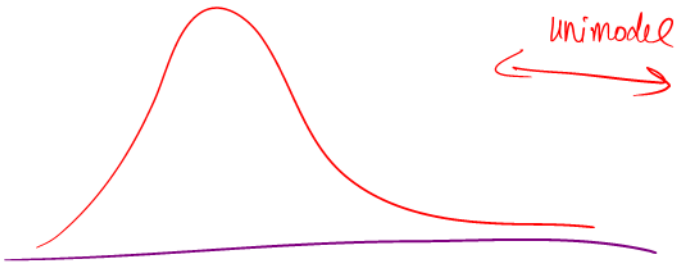
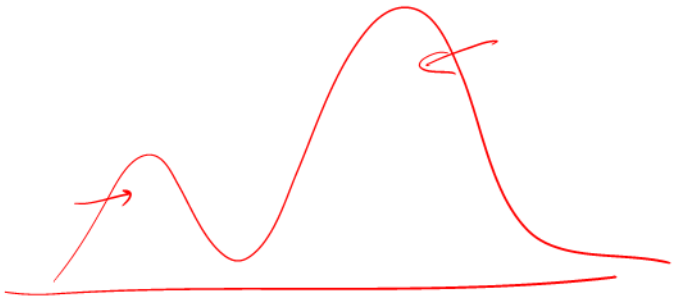
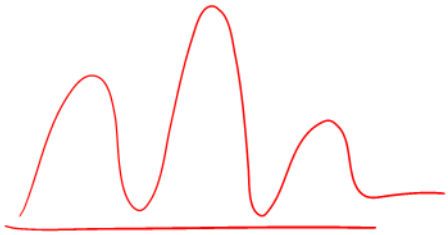
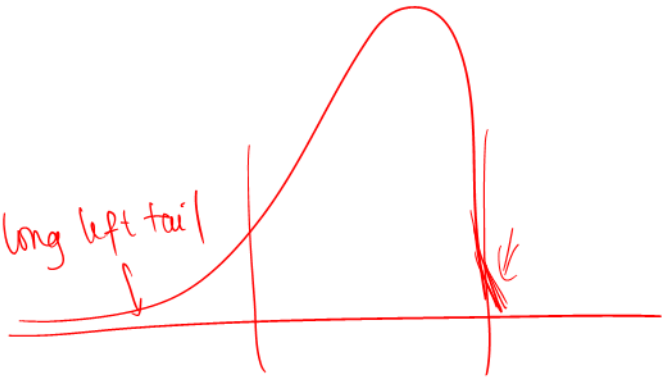


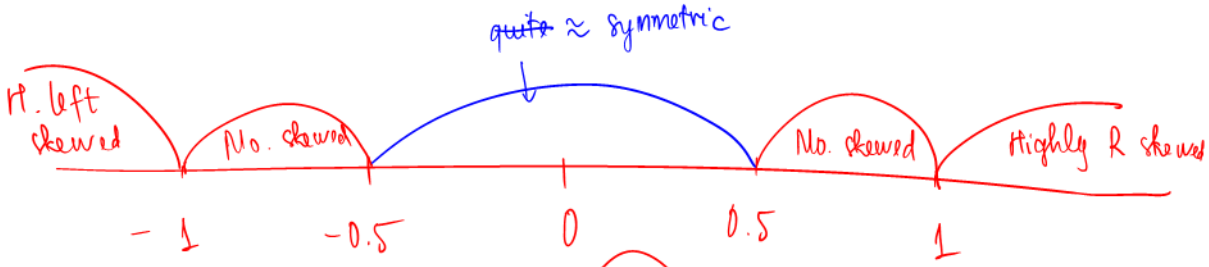






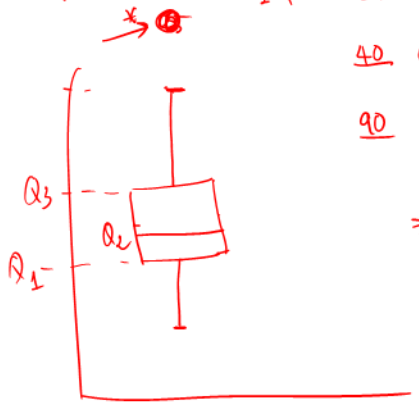



Sample Var : $\frac{1}{n}\sum \ldots$ $\frac{1}{n-1}\sum \ldots$ $n \to \infty$




-0.75

To draw a boxplot: $Q_1$, $Q_2$, $Q_3$ $\Rightarrow$ $IQR = Q_3 - Q_1$.




$40 \leq Q_1 - 1.5\,IQR$
$90 \geq Q_3 + 1.5\,IQR$
} any data point out of this range :: outliers.

$\Rightarrow$ without outliers $\Rightarrow$ max will define the upper whisker

$\Rightarrow$ min will define the lower whisker.

$X = (IQ) = (100, 105, 98, \ldots, 119)$ ($n = 20$) $\Rightarrow$ Normal or not?

$\Rightarrow$ standardized $X$ $\Rightarrow$ Z-score $\rightarrow$ quantile from $N(0,1)$

$\Rightarrow$ ordered: $Z_1, Z_2, \ldots Z_{20}$

$\downarrow$ Right

$q_{0.05}$ $\quad$ $q_{0.1}$