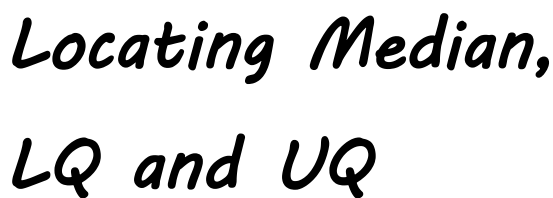


Box Plots



3 4 ↓ 4 6 9 9 ↓ 10 12

LQ
4 UQ
9.5

3 4 4 6 8 9 9 10 12 13

↓ ↓

LQ UQ

4 10

Outliers are extreme values.

$(1.5 \times \text{IQR}) \pm \text{UQ and LQ}$

represent on a box plots



- SPREAD (IQR or Range)
- AVERAGE (median)

Cumulative

Frequency Graphs

Time	Freq	Cumulative Frequency
$9 < t \leq 10$	1	1
$10 < t \leq 11$	4	$1 + 4 = 5$
$11 < t \leq 12$	3	$1 + 4 + 3 = 8$

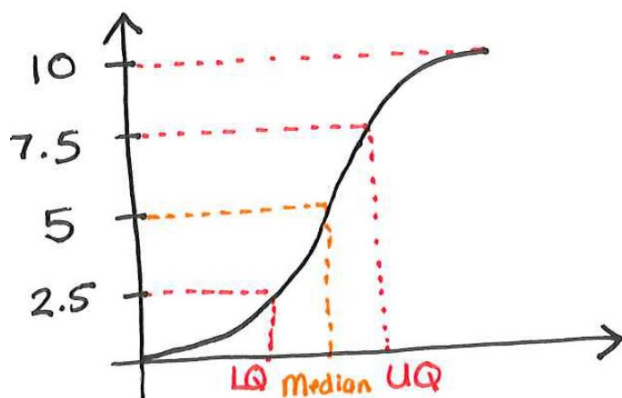
(upper value, Cumulative Frequency)

(10, 1)

(11, 5)

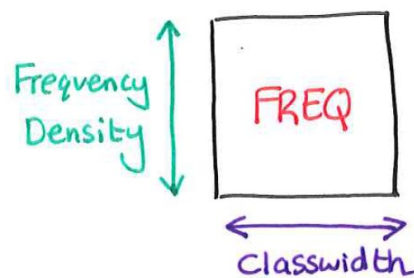
(12, 8)

Locating median, LQ and UQ



Histograms

- Continuous Data
- Uneven Intervals
- Frequency = Area
- No gaps between bars



Weight	Freq	Freq Density
$10 < w \leq 15$ ← 5 →	15	$15 \div 5 = 4$

Scalers

Always make sure

Total Area = Total Frequency

If not you need to find a SCALER

$$\text{SCALER} = \frac{\text{Total Frequency}}{\text{Total Area}}$$