

1 Variable Stats

- measures of center
 - mean / average (\bar{x})
 - median : middle
 - mode : most common
- five # summary (5NS)
 - min
 - Q_1 : quartile 1 → middle of 1st half
 - median
 - Q_3 : quartile 3 → middle of 2nd half
 - max
- by hand !!
 - spread (range) : max - min
 - IQR : interquartile range $Q_3 - Q_1$
- standard deviation : spread / distance from the mean
 - S_x : SD for a sample
 - σ_x : SD for a population

[ex1] 73, 85, 52, 67, 59, 72, 81, 64, 77, 79, 72

5NS
min: 52
 Q_1 : 64
med: 72
 Q_3 : 79
max: 85

mean: 71
 S_x : 9.810

spread: $85 - 52 = 33$
IQR: $79 - 64 = 15$

Ex2 5.2, 7.3, 6.2, 3.1, 9.5, 6.3,
2.9, 4.6

5NS

min: 2.9

Q_1 : 3.9

med: 5.7

Q_3 : 6.8

max: 9.5

mean: 5.6

S_x : 2.2

range

spread: 6.6

IQR: 2.9