

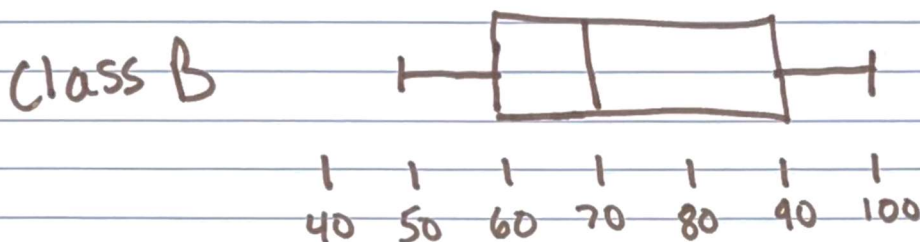
1-6

Lesson ~~90~~ → IQR, MAD and Variability

Median and Mean both summarize
The **center** of a data spread

IQR summarizes something **different**

IQR summarizes **variability**, or
how spread out the data is



	Class A	Class B
Median	80	70
Q1	70	60
Q3	90	90
IQR	20 (90-70)	30 (90-60)

Class A did better → its Median was higher

Class B had more variability → its IQR was higher

Another way to measure variability is
Mean Absolute Deviation (or MAD)

Steps

- ① find mean
- ② find the distance from the mean for each data point on an absolute value basis
- ③ find average of those distances

The MAD therefore tells you how far ~~B~~ from the overall average each data point, on average, is.

When there are OUTLIERS,
Just like Median is preferred over Mean,
IQR is preferred over MAD

This makes sense! Think about it!

We don't want to give undue influence to a bizarre data point!