

BOX & WHISKER PLOTS

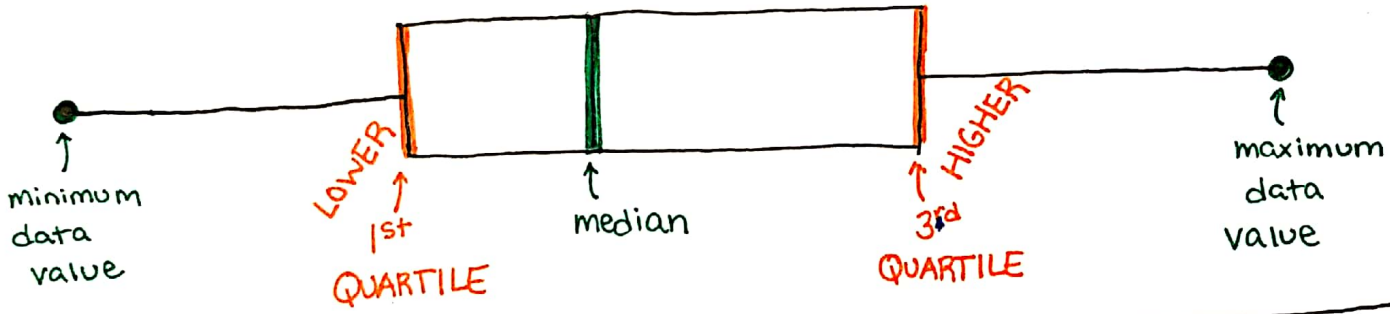
Represents the **MIDDLE** half of the data set (from 1st Q to 3rd Q)

THE BOX

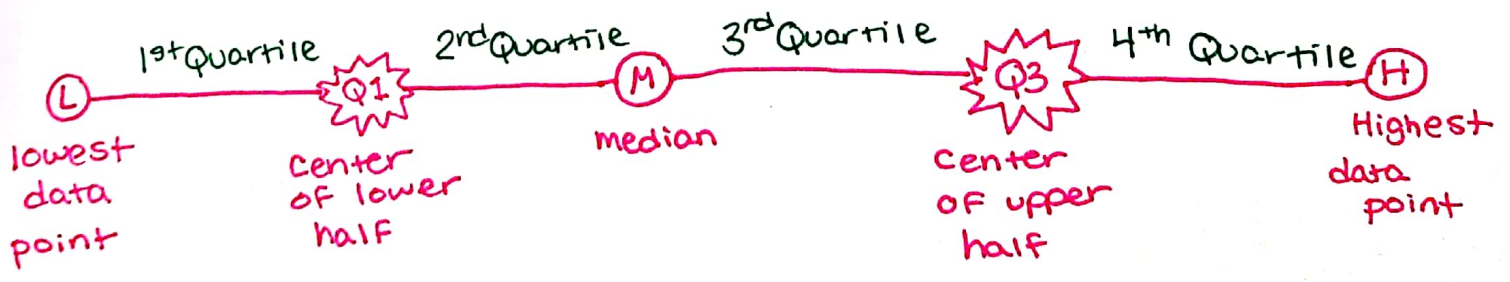
THE WHISKERS

Show how wide the **SPREAD** of the data set is

display... the **MEDIAN & SPREAD** of a data set



QUARTILES ▶▶▶▶ To divide the data into 4 quarters, we first cut it in HALF (using median as center), then find the median of each half as well (gets 1st & 3rd quartile)



House Prices (in thousands)

LIAMS

~~278.8~~, ~~159~~, ~~220~~, ~~175.5~~, ~~169~~, ~~179~~, ~~230~~, ~~289~~, ~~140~~, ~~129~~, ~~309~~,
~~154~~, ~~230~~, ~~245~~, ~~389.9~~, ~~89~~, ~~122~~, 456, ~~269.9~~, 189, 215, ~~165~~



Arrange the data from
LEAST to **GREATEST**

~~89~~ ~~122~~ ~~129~~ ~~140~~ ~~154~~ (159) ~~165~~ ~~169~~ ~~175.5~~
~~179~~ [189] ²⁰² [215] ~~220~~ ~~230~~ ~~230~~ ~~245~~ (269.9) ~~278.8~~
~~289~~ ~~309~~ ~~389.9~~ 456

median: avg. 189 and 215 = $\frac{189 + 215}{2} = 202$



Identify the lower and the
UPPER QUARTILES

by finding the **median** of each half of the data set..

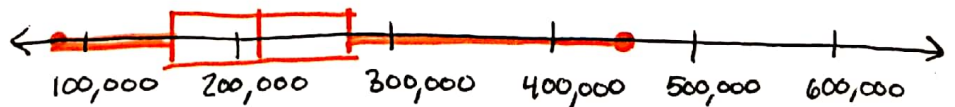
Q1: [159]

Q3: [269.9]



create a
number line
and mark:

: HOUSE PRICES :



A \Rightarrow MEDIAN (Q2)

B \Rightarrow Q₁ and Q₃

C \Rightarrow highest &
Lowest