



Box plots

Five numbers, four quarters

- Today: build a box plot and read it without being fooled by its shape.

2, 4, 5, 7, 8, 10, 12, 15, 18, 20

- Lower whisker spans 3 units. Upper whisker spans 5 units.

Turn & talk: does the longer whisker hold more values?

The five-number summary

- Minimum, Q1, median, Q3, maximum.
- Sort, find the median, then find the median of each half.

Here: 2, 5, 9, 15, 20

- Box runs 5 to 15. Median line at 9.
- $IQR = 15 - 5 = 10$.

Every region holds 25%

- Five marks make four gaps, and each gap is a quarter of the data.
- The longer whisker holds the SAME count, just more spread out.

Width = spread. Never count.

Your turn

- For 3, 5, 6, 8, 9, 11, 14, 16 — find Q1 and Q3.
- Thumbs up when you have them.

The box is half your data

- Box = middle 50%. Whiskers = the other 50%, 25% each.
- The whiskers show the extremes and the skew — do not ignore them.

The median line always sits inside the box. It cannot do otherwise.

Now you

- → In-class practice sheet