



GRADE 6 · STATISTICS & PROBABILITY · PRACTICE

DISPLAYING DATA IN BOX PLOTS

Today's goal: I can display numerical data in plots on a box plot and identify the data set that is being displayed in a box plot.



Pick your peppers!

Everyone does Mild & Medium. Then climb as high as you can.



Mild

Tan the Turtle



Medium

Digit the Fox



Spicy

Blaze the Dragon



Extra Spicy

Pi the Owl

WATCH MR DJ SOLVE

Find the median.

- 1 Eight values, so average the 4th and 5th: 8 and 9.
- 2 $(8 + 9) \div 2 = 8\frac{1}{2}$.

Answer: $8\frac{1}{2}$



REMEMBER

Five numbers: **minimum, Q1, median, Q3, maximum**. Sort the data, find the median, then find the median of each half — those are Q1 and Q3. The box runs Q1 to Q3 and holds the middle 50%. **IQR = Q3 - Q1**. Each of the four regions holds 25% of the values.



MILD

Tan the Turtle: Slow and steady. Warm up!

- 1 Find the minimum.

Answer

- 2 Find the maximum.

Answer



OOPS ALERT

Careful on #1! The slip Mr DJ sees most: Read an unsorted list.

**MEDIUM****Digit the Fox:** Stretch your brain.**3** Find Q1.

Answer

4 Find Q3.

Answer

5 Find the IQR.

Answer

**SPICY****Blaze the Dragon:** Bring the heat!**6** Find the range, and explain how it differs from the IQR.

Answer

- 7 For the data set 2, 4, 5, 7, 8, 10, 12, 15, 18, 20, the lower whisker spans 3 units and the upper whisker spans 5 units. What does that difference tell you?

Answer



EXTRA SPICY

Pi the Owl: Big-brain challenge.

- 8 A student says “the box is where most of the data is, so the whiskers hardly matter.” How much of the data is in the box, and how much is in the whiskers? Is the student right?

Answer



How did this sheet feel?



Easy for me



Just right



Made me think

Stuck? Watch Mr DJ explain it

Step-by-step video lessons on YouTube: [youtube.com/@MathWithMrDJ](https://www.youtube.com/@MathWithMrDJ)

Brain break: daily puzzles

Three new math puzzles every day, free: puzzles.mathwithmrdj.com