



GRADE 6 · STATISTICS & PROBABILITY · HOMEWORK

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

What value is the right edge of the box?

- 1 The box ends at Q3, the median of the upper half 10, 12, 15, 18, 20.

Answer: **Q3 = 15**



REMEMBER Five numbers: minimum, Q1, median, Q3, maximum. The box runs Q1 to Q3 and holds the middle 50%. $IQR = Q3 - Q1$. Each of the four regions holds 25% of the values, however wide or narrow it appears.



FAMILY CORNER

No need to remember this math yourself! Ask your student to teach you Mr DJ's example, then try the first Mild problem together.

**MILD**

Tan the Turtle: Slow and steady. Warm up!

- 1 What value is the left edge of the box?

Answer



OOPS ALERT

Careful on #1! The slip Mr DJ sees most: Gave the minimum, 2. That is the whisker tip, not the box edge.



🔊 **MEDIUM**

Digit the Fox: Stretch your brain.

- 2 Is the median inside the box? Explain why that must always be true.

Answer

- 3 How wide is the left half of the box, from Q1 to the median?

Answer

- 4 How wide is the right half of the box, from the median to Q3?

Answer



🔥 **SPICY**

Blaze the Dragon: Bring the heat!

- 5 The two halves of the box have different widths. Does one half contain more values? Explain.

Answer

6 What does the width of the whole box measure, and what is it called?

Answer



EXTRA SPICY

Pi the Owl: Big-brain challenge.

7 A box plot has five marked numbers. Explain why that creates four regions rather than five.

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