



GRADE 5 · MEASUREMENT & DATA · PRACTICE

LINE PLOTS WITH FRACTIONS

Today's goal: I can make a line plot to display a data set of measurements in fractions.

Pick your peppers!

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



Medium
Digit the Fox



Spicy
Blaze the Dragon



Extra Spicy
Pi the Owl



REMEMBER The axis runs in equal steps of the smallest unit, empty marks included. Total by counting every dot. Redistribute by dividing the total by the number of measurements.



MEDIUM

Digit the Fox: Stretch your brain.

- 1 Six cups measure $\frac{1}{8}$ three times, $\frac{1}{2}$ twice and $\frac{7}{8}$ once. Draw the line plot.

Grid area for drawing the line plot.

Answer

Answer box

- 2 For that data, write (a) how many cups, (b) the total, (c) the amount each if shared equally.

Grid area for writing answers.

Answer

Answer box

- 3 Eight beakers: $\frac{1}{4}$ twice, $\frac{1}{2}$ once, $\frac{3}{4}$ four times, 1 once. Find the total and the equal share.

Answer

- 4 On that beaker plot, how much liquid is held by the four beakers at $\frac{3}{4}$? Is that more or less than half the total?

Answer



OOPS ALERT

Careful on #3! Blaze spotted the slip Mr DJ sees most: Answered $2\frac{1}{2}$ and $\frac{5}{8}$. The share is right and the total is not, which is the coincidence this data set is chosen to expose — see the exit ticket.



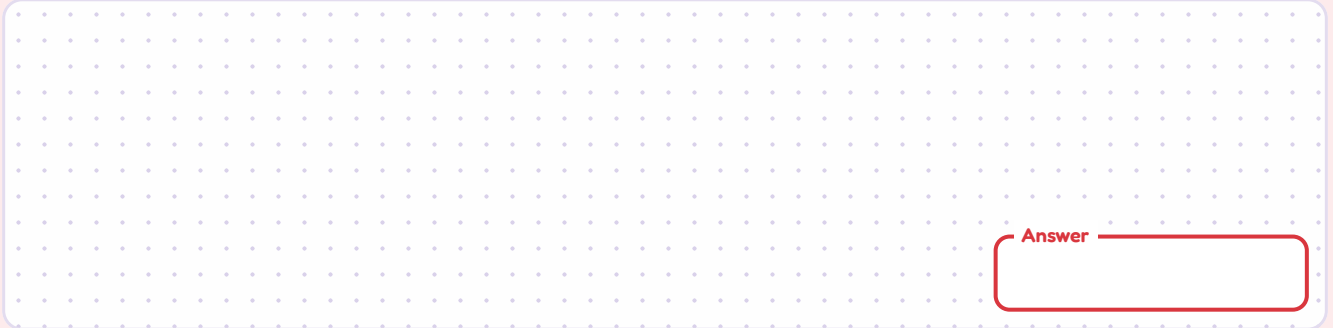
SPICY

Blaze the Dragon: Bring the heat!

- 5 For the same data, work out the total by adding the three labels instead. What do you get, and why is it different?

Answer

- 6 A child says the equal share must be one of the values on the plot. Show that this is not true.



Answer

- 7 Why must a mark with no dots still be drawn on the axis?



Answer

- 8 A child plots $\frac{1}{8}$, $\frac{1}{2}$ and $\frac{7}{8}$ equally spaced, with nothing in between. What does that picture get wrong?



Answer



EXTRA SPICY

Pi the Owl: Big-brain challenge.

- 9 “There are 8 dots, so there are 8 litres.” What has been confused with what?



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