

Data Detectives

Read, organize, and use data displays.

GRADE 4 • TEKS 4.9

4.9 "Data analysis. The student applies mathematical process standards to solve problems by collecting, organizing, displaying, and interpreting data. The student is expected to: represent data on a frequency table, dot plot..."

NAME _____

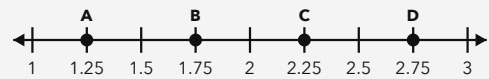
DATE _____

COUNT, THEN COMPARE

A data display helps you see how often each value occurs. Count each data value once, then use the display to add, compare, or find a difference. Check that your totals match the data.

WORKED EXAMPLE

The number line shows miles walked by four hikers. How many hikers walked $2\frac{1}{4}$ miles or more?



- Find $2\frac{1}{4}$ on the number line.
- Count points at $2\frac{1}{4}$ or to its right.
- There are 2 points.

Answer: 2 hikers

PRACTICE 4 problems

- 1** A basketball team recorded free throws made in six practice rounds: 5, 7, 5, 9, 7, 5. Make a frequency table. Which result occurred most often?

ANSWER _____

- 2** A game designer timed four level tests: 3.6, 4.2, 3.6, and 4.8 minutes. How many tests lasted 3.6 minutes?

ANSWER _____

- 3** At a snack survey, students chose $\frac{3}{8}$, $\frac{5}{8}$, $\frac{3}{8}$, $\frac{7}{8}$, and $\frac{3}{8}$ pound bags. What bag size was chosen most often?

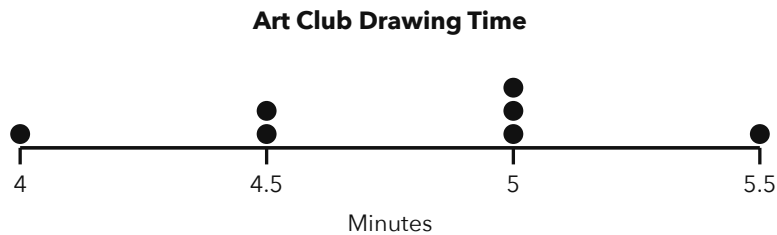
ANSWER _____

- 4** A librarian tracked books checked out each hour: 12, 14, 12, 16, 14, 12. Use a frequency table. How many more hours had 12 books than 14 books?

ANSWER _____

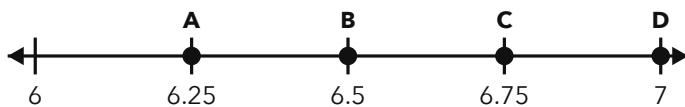
APPLY IT Show your work

- 1** The dot plot shows minutes spent drawing at art club. The club gives a sticker to each student who drew for $4\frac{1}{2}$ or 5 minutes. How many stickers are needed?



ANSWER _____

- 2** The number line shows miles walked by four players in a fitness game. How much farther did the farthest player walk than the nearest player?



ANSWER _____

CHALLENGE One step up

A pet shelter recorded kitten weights in pounds: 21.4, 21.8, 22.1, 22.1, 22.7, 23.0. Make a stem-and-leaf plot with whole-number stems and tenths leaves. Find the range and explain how the plot helped you find it.

WORK SPACE AND ANSWER

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	A basketball team recorded free throws made in six practice rounds: 5, 7, 5, 9, 7, 5. Make a frequency table. Which result occurred most often?	5 free throws, 3 rounds
2	A game designer timed four level tests: 3.6, 4.2, 3.6, and 4.8 minutes. How many tests lasted 3.6 minutes?	2 tests
3	At a snack survey, students chose $\frac{3}{8}$, $\frac{5}{8}$, $\frac{3}{8}$, $\frac{7}{8}$, and $\frac{3}{8}$ pound bags. What bag size was chosen most often?	$\frac{3}{8}$ pound, 3 times
4	A librarian tracked books checked out each hour: 12, 14, 12, 16, 14, 12. Use a frequency table. How many more hours had 12 books than 14 books?	1 hour

PART 2 • APPLY IT

- 5 stickers** Count the dots at 4 $\frac{1}{2}$ minutes and at 5 minutes. Add 2 and 3.
- $\frac{3}{4}$ mile** Use the leftmost and rightmost points. Subtract 6 $\frac{1}{4}$ from 7.

CHALLENGE

21 | 4 8; 22 | 1 1 7; 23 | 0. Range: 1.6 pounds. The ordered plot shows the least weight, 21.4, and the greatest weight, 23.0.

Accept frequency tables in any clear order with correct counts. Accept 0.75 mile as equivalent to $\frac{3}{4}$ mile, and accept an equivalent correctly ordered stem-and-leaf plot.