LESSON MAKER PRO

Lengths on a Line

Use line plots to compare and combine lengths.

GRADE 4 · MT.4.MD.4

MT.4.MD.4 "Make a line plot to display a data set of measurements in fractions of a unit and solve problems involving addition and subtraction of fractions by using information presented in line plots."

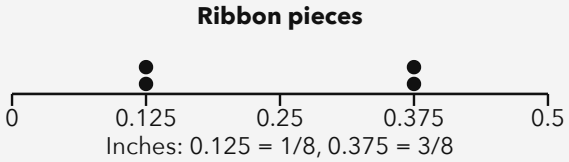
NAME _____ DATE _____

READ, THEN CALCULATE

Each X on a line plot stands for one measurement. Count the Xs you need, then add or subtract the fractions.

WORKED EXAMPLE

What is the total length of the two longest pieces?



1. The two longest pieces are each 3/8 inch.
2. Add: 3/8 + 3/8 = 6/8.
3. Simplify: 6/8 = 3/4.

Answer: 3/4 inch

PRACTICE 4 problems

1 Lengths: 1/4, 1/2, 1/4 inches. How much longer is the longest piece than the shortest?

ANSWER _____

2 Lengths: 1/2, 3/4, 1/2 inches. What is the total length of the two shortest pieces?

ANSWER _____

3 Lengths: 1/4, 3/4, 3/4 inches. What is the total length of the two longest pieces?

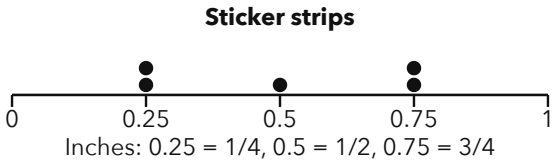
ANSWER _____

4 Lengths: 1/4, 1/2, 3/4, 1/4 inches. How much longer are the two longest pieces together than the two shortest together?

ANSWER _____

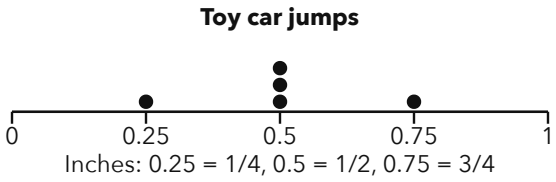
APPLY IT Show your work

1 Maya joins the two longest sticker strips on the plot. How long are they together?



ANSWER _____

2 A toy car makes five jumps. How much farther are the three middle jumps together than the shortest and longest jumps together?



ANSWER _____

CHALLENGE One step up

Make a line plot of these paper-strip lengths. How much greater is the total length of the 3/4-inch strips than the total length of the 1/2-inch strips?

PAPER-STRIP LENGTHS (INCHES)

Strip 1	Strip 2	Strip 3
1/4	1/2	1/2
3/4	3/4	3/4

WORK SPACE AND ANSWER

ANSWER KEY

Lengths on a Line

GRADE 4 · MT.4.MD.4

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Lengths: 1/4, 1/2, 1/4 inches. How much longer is the longest piece than the shortest?	**1/4 inch**
2	Lengths: 1/2, 3/4, 1/2 inches. What is the total length of the two shortest pieces?	**1 inch**
3	Lengths: 1/4, 3/4, 3/4 inches. What is the total length of the two longest pieces?	**1 1/2 inches**
4	Lengths: 1/4, 1/2, 3/4, 1/4 inches. How much longer are the two longest pieces together than the two shortest together?	**3/4 inch**

PART 2 · APPLY IT

1. **1 1/2 inches** The two longest strips are each 3/4 inch. Their total is 3/4 + 3/4 = 1 1/2 inches.
2. **1/2 inch** The three middle jumps total 1 1/2 inches. The shortest and longest total 1 inch, so the difference is 1/2 inch.

CHALLENGE

The line plot has one X at 1/4, two Xs at 1/2, and three Xs at 3/4. The difference is 1 1/4 inches.

Accept equivalent fractions and mixed numbers. For the challenge, the line plot must show all six measurements.