LESSON MAKER PRO

X Marks the Total

Read line plots and calculate with fraction measurements.

GRADE 5 · 5.MD.B.2

CCSS.Math.Content.5.MD.B.2 "Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8). Use operations on fractions for this grade to solve problems involving information presented in line plots. For example..."

NAME _____ DATE _____

READ EVERY X

Place one X above each measurement on a line plot. Stack X marks when measurements match. Add the values shown by the X marks, then regroup when the total is one whole or more.

WORKED EXAMPLE

Each tick on the line plot is 1/8 foot. What total length do the X marks show?



1. Read the marks as 3/8, 7/8, and 1 1/8.
2. Add: 3/8 + 7/8 + 1 1/8 = 19/8.
3. Rename 19/8 as 2 3/8.

Answer: 2 3/8 feet

PRACTICE 4 problems

1 Make a line plot with 1/8-unit ticks for 1/8, 1/2, 1/2, and 3/4. How many X marks belong above 1/2?

ANSWER _____

2 A line plot has measurements of 1/4, 1/4, 1/2, and 5/8 meter. Find the total.

ANSWER _____

3 A line plot has two X marks at 5/8 yard. What total length do the marks show?

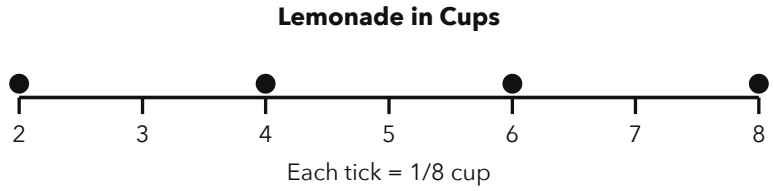
ANSWER _____

4 A line plot shows 1/4, 1/2, 1/2, and 3/4 cup. The total is poured equally into 4 jars. How much is in each jar?

ANSWER _____

APPLY IT Show your work

1 The line plot shows lemonade in four cups. The scale uses eighths of a cup. If the lemonade is shared equally among 4 cups, how much goes in each cup?



ANSWER _____

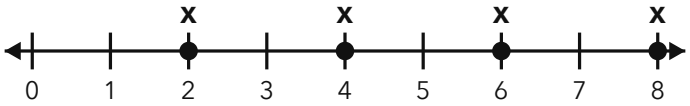
2 A smoothie team measures 1/4, 1/2, 3/4, and 1 cup of fruit. What is the total amount? If 1/4 cup spills, how much fruit is left?

WORK SPACE

ANSWER _____

CHALLENGE One step up

Each tick on the line plot is 1/8 cup. A recipe needs 3 cups. Explain how much more is needed.



WORK SPACE AND ANSWER

ANSWER KEY

X Marks the Total

GRADE 5 · 5.MD.B.2

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Make a line plot with 1/8-unit ticks for 1/8, 1/2, 1/2, and 3/4. How many X marks belong above 1/2?	**2**
2	A line plot has measurements of 1/4, 1/4, 1/2, and 5/8 meter. Find the total.	**1 5/8 meters**
3	A line plot has two X marks at 5/8 yard. What total length do the marks show?	**1 1/4 yards**
4	A line plot shows 1/4, 1/2, 1/2, and 3/4 cup. The total is poured equally into 4 jars. How much is in each jar?	**1/2 cup**

PART 2 · APPLY IT

1. **5/8 cup** The total is 20/8 cups, or 2 1/2 cups. Divide 2 1/2 by 4 to get 5/8 cup.
2. **2 1/2 cups total; 2 1/4 cups left** Add the four amounts to get 2 1/2 cups. Subtract 1/4 cup to get 2 1/4 cups.

CHALLENGE

1/2 cup. The X marks total 20/8 cups, or 2 1/2 cups. Since 3 cups are needed, 3 - 2 1/2 = 1/2 cup.

Accept equivalent fraction forms, such as 10/16 for 5/8. For the challenge, accept any correct explanation that totals the plotted amounts before finding the difference.