LESSON MAKER PRO

Plot the Parts

Use line plots to solve fraction problems.

GRADE 5 · 5.DA.A.16.a

5.DA.A.16.a "Add, subtract, multiply, and divide fractions to solve problems involving information presented in line plots."

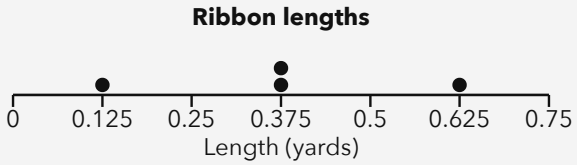
NAME _____ DATE _____

READ, THEN CALCULATE

Each dot stands for one measurement at the value below it. Use the dots to choose the amounts you need, then add, subtract, multiply, or divide to answer the question.

WORKED EXAMPLE

What is the total length of ribbon shown in the line plot? Write your answer as a fraction or mixed number.

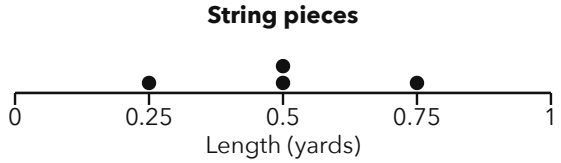


1. Write the lengths as fractions: 1/8, 3/8, 3/8, and 5/8 yard.
2. Add: 1/8 + 3/8 + 3/8 + 5/8 = 12/8 yards.
3. Simplify: 12/8 = 1 1/2.

Answer: 1 1/2 yards

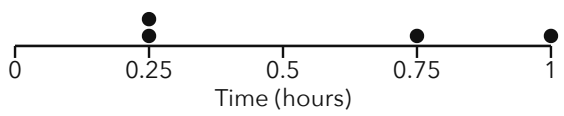
PRACTICE 6 problems

1 What is the total length of the string pieces? Write your answer as a fraction or mixed number.



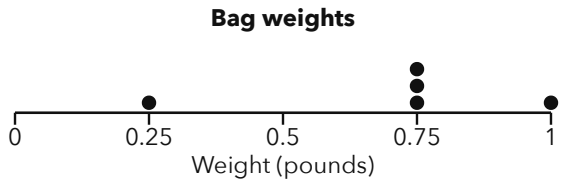
ANSWER _____

2 How much longer was the longest reading session than the shortest? Write your answer as a fraction.



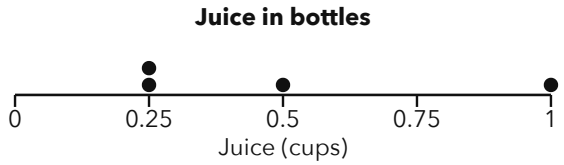
ANSWER _____

3 Three bags each weigh 3/4 pound. What is their combined weight?



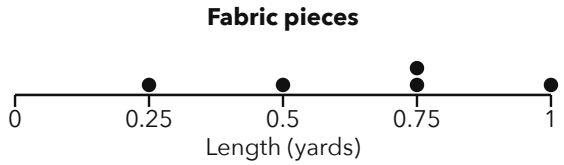
ANSWER _____

4 What is the average amount of juice in the four bottles? Write your answer as a fraction.



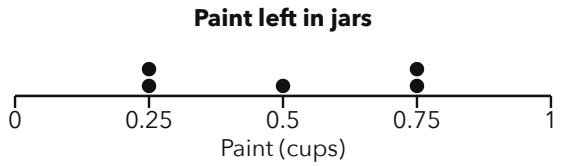
ANSWER _____

5 Find the total length of the pieces that are at least 3/4 yard long. How much greater is it than the total length of the other pieces?



ANSWER _____

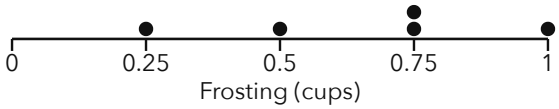
6 The plot shows the paint left in five jars. If each art project needs 1/4 cup, how many projects can use all the paint?



ANSWER _____

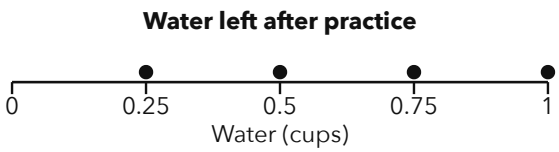
APPLY IT Show your work

1 A baking club tracks the frosting it uses for five batches of cupcakes. How many cups of frosting did the two batches that used the most frosting use together?



ANSWER _____

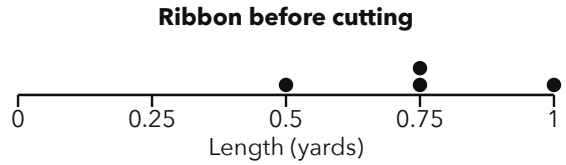
2 After soccer practice, four players pour the water left in their bottles into 1/2-cup servings. How many full servings can they make?



ANSWER _____

CHALLENGE One step up

The plot shows four ribbon pieces. A crafter cuts 1/4 yard from each piece. What fraction of the original total ribbon remains? Show how you know.



WORK SPACE AND ANSWER

ANSWER KEY

Plot the Parts

GRADE 5 · 5.DA.A.16.a

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	What is the total length of the string pieces? Write your answer as a fraction or mixed number.	**2 yards**
2	How much longer was the longest reading session than the shortest? Write your answer as a fraction.	**3/4 hour**
3	Three bags each weigh 3/4 pound. What is their combined weight?	**2 1/4 pounds**
4	What is the average amount of juice in the four bottles? Write your answer as a fraction.	**1/2 cup**
5	Find the total length of the pieces that are at least 3/4 yard long. How much greater is it than the total length of the other pieces?	**At least 3/4 yard: 2 1/2 yards; greater by 1 3/4 yards**
6	The plot shows the paint left in five jars. If each art project needs 1/4 cup, how many projects can use all the paint?	**10 projects**

PART 2 · APPLY IT

1. **1 3/4 cups** The two greatest amounts are 1 cup and 3/4 cup. Their sum is 1 3/4 cups.
2. **5 servings** The bottles hold 1/4 + 1/2 + 3/4 + 1 = 2 1/2 cups in all. Divide 2 1/2 by 1/2 to get 5 servings.

CHALLENGE

2/3 remains. The original total is 3 yards, and four cuts of 1/4 yard remove 1 yard. That leaves 2 yards, which is 2/3 of the original total.

Accept equivalent fractions and mixed numbers. For the challenge, accept any correct explanation that compares the 2 yards remaining with the original 3 yards.