

Grade 5 - Line Plots and Data - Test

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Name: _____ Class: _____ Date: ____/____/____

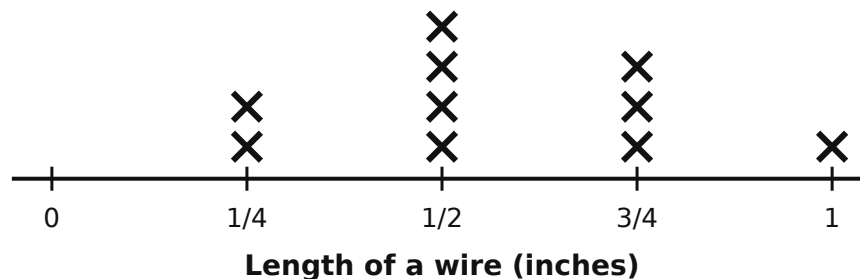
This 45-minute test covers line plots with fractions in halves, fourths and eighths (5.MD.B.2). There are 9 questions worth 20 points. Read each plot carefully, show your fraction work, and write units in your answers.

About this test

- Grade: Grade 5
- Chapter: Line Plots and Data
- Standards: 5.MD.B.2
- Time: 45 minutes
- Total: 20 points

Question 1 - Pieces of wire [3 pts]

Solve. The line plot shows the lengths of 10 pieces of wire in inches.



Line plot. Each X is one measurement. Label: Length of a wire (inches).

- How many pieces are longer than $\frac{1}{2}$ inch? (1 point)
- How much longer is the longest piece than the shortest piece? (1 point)
- What is the total length of all 10 pieces? (1 point)

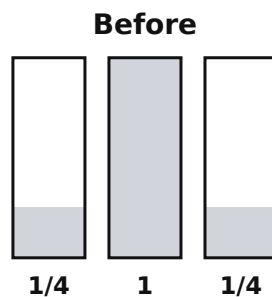
Question 2 - Plot the nails [2 pts]

Solve. Six nails measure $\frac{1}{8}, \frac{3}{8}, \frac{3}{8}, \frac{1}{2}, \frac{5}{8}, \frac{3}{8}$ inch.

- Draw a number line from 0 to 1 marked in eighths and make a line plot of the data. (1 point)
- How many nails are longer than $\frac{1}{4}$ inch? (1 point)

Question 3 - Bags of flour [2 pts]

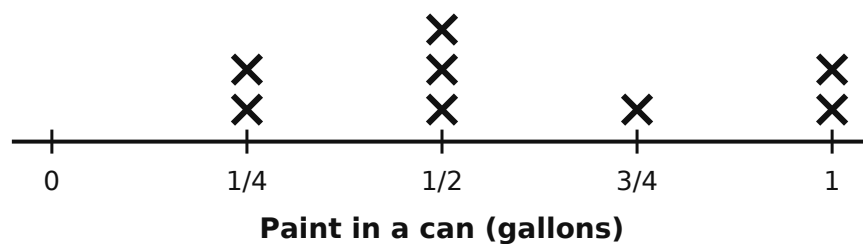
Solve. Three bags of flour hold $\frac{1}{4}$, 1 and $\frac{1}{4}$ pound. The flour is poured together and shared equally among the 3 bags. How much flour is in each bag?



Each tall box holds 1 pound when full.

Question 4 - Cans of paint [3 pts]

Solve. The line plot shows the amount of paint, in gallons, left in 8 cans.



Line plot. Each X is one measurement. Label: Paint in a can (gallons).

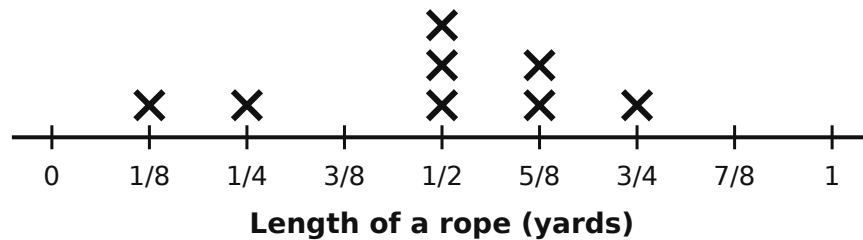
- How many cans have less than $\frac{3}{4}$ gallon? (1 point)
- How many gallons of paint are there in all? (1 point)
- The painter wants every can to hold 1 gallon. How many more gallons does she need in all? (1 point)

Question 5 - Two bottles [2 pts]

Solve. One bottle holds $\frac{5}{8}$ gallon of water and another holds $\frac{7}{8}$ gallon. The water is poured together and shared equally between the two bottles. How much water is in each bottle?

Question 6 - Lengths of rope [2 pts]

Solve. The line plot shows the lengths of 8 ropes in yards.



Line plot. Each X is one measurement. Label: Length of a rope (yards).

- How many ropes are longer than $\frac{1}{4}$ yard? (1 point)
- Find the total length of the ropes that are $\frac{1}{2}$ yard or $\frac{5}{8}$ yard. (1 point)

Question 7 - Running log [2 pts]

Solve. Priya ran $\frac{1}{2}$ mile on Monday, $\frac{3}{4}$ mile on Tuesday, $\frac{1}{2}$ mile on Wednesday and $1\frac{1}{4}$ miles on Thursday. Find the total distance. If she had run the same distance each day, how far would that be?

Question 8 - Rain gauge [2 pts]

Solve. The rain gauge showed $\frac{3}{8}$ inch on Monday, $\frac{5}{8}$ inch on Tuesday, $\frac{1}{4}$ inch on Wednesday and $\frac{1}{2}$ inch on Thursday. The town wants 3 inches this week. How many more inches are needed?

Question 9 - Who has more [2 pts]

Solve. Ethan's line plot has 4 X's above $\frac{1}{4}$. Maya's line plot has 2 X's above $\frac{3}{4}$. Whose X's show the greater total? Show how you know.