

Lesson 13: Medidas fraccionarias en diagramas de puntos

Standards Alignments

| | |
|------------------|----------------------|
| Building On | 3.MD.B.4 |
| Addressing | 4.MD.B.4, 4.NF.B.3.d |
| Building Towards | 4.MD.B.4 |

Teacher-facing Learning Goals

- Analyze and interpret fractional measurement data on line plots.
- Organize measurement data in fractions of a unit ($\frac{1}{8}$, $\frac{1}{4}$, $\frac{1}{2}$) onto line plots.

Student-facing Learning Goals

- Hagamos diagramas de puntos y analicemos los datos.

Lesson Purpose

The purpose of this lesson is for students to display a set of measurements in fractions of a unit ($\frac{1}{8}$, $\frac{1}{4}$, and $\frac{1}{2}$) on a line plot and interpret the data. Students also add and subtract fractions to answer questions about data presented in line plots.

In grade 3, students generated measurement data in nearest $\frac{1}{2}$ inch or $\frac{1}{4}$ inch and represented such data on line plots. Earlier in the course, students learned about equivalent fractions and about sums and differences of fractions with the same denominator. In this lesson, students plot data involving lengths measured in $\frac{1}{8}$ inch and analyze the data. They use the line plots and their knowledge of equivalence and fraction operations to answer questions about situations.

An optional measuring activity is included in the lesson. While grade 4 standards do not require students to measure lengths or generate measurement data, measuring reinforces student understanding of the relative size of fractions and gives meaning to the context used in subsequent activities.

The activities in this lesson call for used colored pencils. If colored pencils are unavailable, substitute with regular pencils.

Access for:

Students with Disabilities

- Representation (Activity 2)

English Learners

- MLR7 (Activity 3)

Instructional Routines

Notice and Wonder (Warm-up)

Materials to Gather

- Colored pencils: Activity 1

Lesson Timeline

| | |
|------------------|--------|
| Warm-up | 10 min |
| Activity 1 | 25 min |
| Activity 2 | 20 min |
| Activity 3 | 15 min |
| Lesson Synthesis | 10 min |
| Cool-down | 5 min |

Teacher Reflection Question

Today's lesson encouraged small-group collaboration. How did students interact with each other's ideas today in the work? How can you ensure in future small-group collaborations that all students' voices are heard?

Cool-down (to be completed at the end of the lesson)

🕒 5 min

Los datos de los lápices de Jada

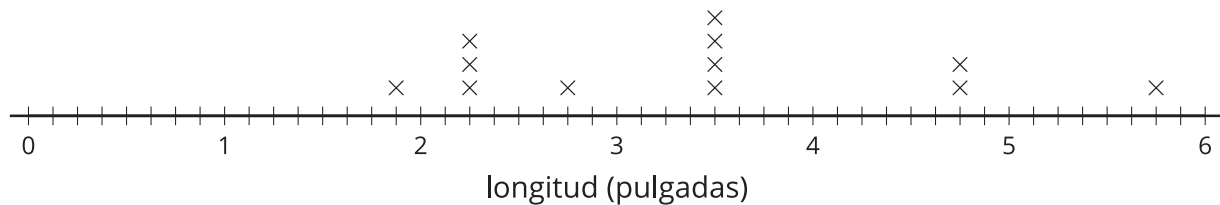
Standards Alignments

Addressing 4.MD.B.4, 4.NF.B.3.d

Student-facing Task Statement

Jada midió las longitudes de sus lápices y mostró sus datos en un diagrama de puntos.

Datos de los lápices de Jada



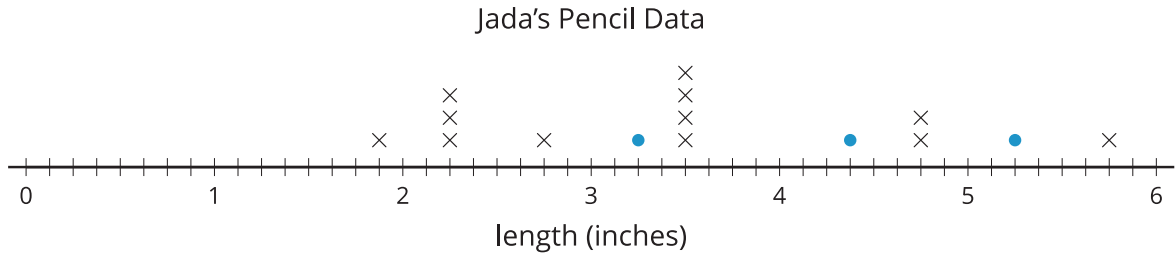
1. Jada no ha graficado todavía los datos de los últimos tres lápices de su colección. Sus

longitudes son: $3\frac{1}{4}$, $4\frac{3}{8}$ y $5\frac{1}{4}$. Graficalos en el diagrama de puntos.

2. ¿Cuál es la diferencia de longitud entre el lápiz más largo y el lápiz más corto de su colección? Muestra tu razonamiento.

Student Responses

1.



2. $3\frac{7}{8}$ inches. Sample response: $5\frac{6}{8} - 1\frac{7}{8} = 4\frac{14}{8} - 1\frac{7}{8} = 3\frac{7}{8}$