Lesson 5: Multi-step Conversion Problems: Metric Length

Standards Alignments

Addressing 5.MD.A.1, 5.NBT.A.1

Teacher-facing Learning Goals

- Solve multi-step problems involving metric length measurement conversions.

Student-facing Learning Goals

- Let's solve multi-step problems about metric length.

Lesson Purpose

The purpose of this lesson is for students to solve multi-step conversion problems about distance in metric units.

In this lesson, students convert different metric distance measurements and perform arithmetic with those measurements in order to solve problems (MP2). The values of the measurements are mostly decimals so students practice performing arithmetic with decimals. They have opportunities to use all four operations and to select whether to convert from the larger unit to a smaller unit or from the smaller unit to a larger unit. Using a smaller unit requires dealing with larger numbers while using a larger unit requires dealing with decimals. Students are invited to compare the two strategies while using a strategy that makes sense to them.

Access for:

Students with Disabilities

- Engagement (Activity 1)

English Learners

- MLR1 (Activity 2)

Instructional Routines

True or False (Warm-up)

Materials to Gather

- Metersticks: Activity 1

Lesson Timeline

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

Teacher Reflection Question

What evidence did you see that each of your students applied understanding of decimals from a previous unit?

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

5 min

Compare Lengths

Standards Alignments

Addressing 5.MD.A.1

Student-facing Task Statement

Jada ran 15.25 kilometers. Han ran 8,500 meters. Who ran farther? How much farther? Explain or show your reasoning.

Student Responses

Jada ran 6.75 kilometers farther. Sample response: 8,500 meters is 8.5 kilometers. So Jada ran $15.25 - 8.5$ kilometers farther and that's 6.75 kilometers.