Unit 6, Lesson 5

Multi-step Conversion Problems: Metric Lengths

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

Warm-up

True or False: Powers of 10

Decide if each statement is true or false. Be prepared to explain your reasoning.

- $5{,}423 \times 10 = 50{,}423$

- $5{,}423 \div 10 = 542.3$

- $5{,}423 \div 100 = 54.23$

Activity 1

Walk All Day

Lin has a watch that counts the number of steps she takes during the day. The watch displays her steps in centimeters, meters, or kilometers.

1. Here is a list of activities Lin did on Monday. Next to each activity, write whether it would make sense to display the distance in centimeters, meters, or kilometers.
   - walked to her friend's desk
   - walked to the front of the classroom
   - walked from her classroom to the bus
   - ran twice around the playground

2. The table shows the amount of steps Lin's watch displayed for each activity. If each of Lin's steps is 50 centimeters, how many centimeters and how many meters did she walk for each activity?

activity	number of steps	distance (cm)	distance (m)
walked to her friend's desk	5		
walked to the front of the classroom	12		
walked from her classroom to the bus	250		
ran twice around the playground	1,000		

3. At the end of the day, Lin's watch displayed 8,500 steps. Should her watch record the distance in centimeters, meters, or kilometers? Explain your reasoning.

4. How many kilometers did Lin walk on Monday?



Activity 2

Who Ran Farther?

1. Use the table to find the total distance, in kilometers, Tyler ran during the week. Explain or show your reasoning.

day	distance (km)
Monday	8.5
Tuesday	6.25
Wednesday	10.3
Thursday	5.75
Friday	9.25

2. Use the table to find the total distance, in meters, Clare ran during the week. Explain or show your reasoning.

day	distance (m)
Monday	5,400
Tuesday	7,500
Wednesday	8,250
Thursday	6,750
Friday	7,250

3. Who ran farther, Clare or Tyler? How much farther? Explain or show your reasoning.