

Measure It Out

Choose an operation and keep units organized.

GRADE 4 • TEKS 4.8.C

4.8.C "solve problems that deal with measurements of length, intervals of time, liquid volumes, mass, and money using addition, subtraction, multiplication, or division as appropriate."

NAME _____

DATE _____

MATCH THE UNITS

When you add or subtract measurements, line up the same units first. When you multiply or divide, use the measurement in each group and write the unit in your answer.

WORKED EXAMPLE

A cooler holds 7 L 180 mL of juice.
Pour in 3 L 460 mL more. How
much juice is in the cooler?

1. Add the liters: $7\text{ L} + 3\text{ L} = 10\text{ L}$.
2. Add the milliliters: $180\text{ mL} + 460\text{ mL} = 640\text{ mL}$.
3. Combine the units: $10\text{ L } 640\text{ mL}$.

Answer: 10 L 640 mL

PRACTICE 6 problems

- 1** Four bags of birdseed each have a mass of 225 g. What is the total mass of the birdseed?

ANSWER _____

- 2** You pay with \$20.00 for a notebook that costs \$8.65. How much change should you get?

ANSWER _____

- 3** A game begins at 1:25 p.m. and ends at 2:15 p.m. How many minutes does the game last?

ANSWER _____

- 4** Five bottles each hold 1 L 250 mL of water. How much water do the bottles hold altogether?

ANSWER _____

- 5** An 8 m rope is cut into 4 equal pieces. How long is each piece?

ANSWER _____

- 6** A lesson starts at 8:40 a.m. and ends at 9:55 a.m. How long is the lesson?

ANSWER _____

APPLY IT Show your work

- 1** You have \$25.00 to spend at an arcade. You buy 4 packs of game tokens for \$4.25 each. How much money is left?

WORK SPACE

ANSWER _____

- 2** For a team snack, 8 pitchers each hold 1 L 250 mL of lemonade. The lemonade is poured into cups that each hold 500 mL. How many full cups can be filled?

WORK SPACE

ANSWER _____

CHALLENGE One step up

A 12 L water dispenser is partly filled using 8 cups of water. Each cup holds 750 mL. How many more liters of water are needed to fill the dispenser?

WORK SPACE AND ANSWER

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Four bags of birdseed each have a mass of 225 g. What is the total mass of the birdseed?	900 g
2	You pay with \$20.00 for a notebook that costs \$8.65. How much change should you get?	\$11.35
3	A game begins at 1:25 p.m. and ends at 2:15 p.m. How many minutes does the game last?	50 minutes
4	Five bottles each hold 1 L 250 mL of water. How much water do the bottles hold altogether?	6 L 250 mL
5	An 8 m rope is cut into 4 equal pieces. How long is each piece?	2 m
6	A lesson starts at 8:40 a.m. and ends at 9:55 a.m. How long is the lesson?	1 hour 15 minutes

PART 2 • APPLY IT

1. **\$8.00** Multiply 4 by \$4.25 to find the total cost, \$17.00. Subtract \$17.00 from \$25.00.
2. **20 cups** Each pitcher holds 1,250 mL, so the pitchers hold 10,000 mL altogether. Divide 10,000 mL by 500 mL per cup.

CHALLENGE

6 L

Accept equivalent measurement forms when they match the requested unit or show the same amount. For the challenge, students may show $8 \times 750 \text{ mL} = 6,000 \text{ mL}$, then convert to 6 L before subtracting.