Liquid Volumes and Masses

Apply the skill to decisions and designs

Name _____ **Date** _____ **Score** _____ / 6

QUICK REVIEW

Liters (L) measure liquid volume, as in a 3-L pitcher. Grams (g) measure light objects, such as a 5-g crayon. Kilograms (kg) measure heavier things, such as a 2-kg bag of rice. Read the scale intervals and combine only like units.

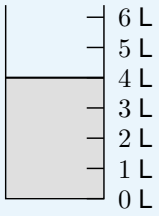
Worked example

Read the liquid level. How much more liquid will fill the container to the top numbered mark?

1. The liquid surface meets the 4-L mark.

2. The top numbered mark is 6 L; $6 - 4 = 2$ L more will reach it.

Answer: 4 L; 2 L more.



Practice Problems

Show your thinking.

1. 3 identical bags each have mass 4 kg. Find their total mass.

2. Share 12 L of juice equally among 4 containers. Find the volume in each.

3. A jug has 7 L. You need 9 L for a project. Is there enough? How many liters extra or short?

4. A jug has 8 L. You need 5 L for a project. Is there enough? How many liters extra or short?

5. A container held some water. After 2 L are poured out, 6 L remain. How much was there at first?

6. 5 identical bags each have mass 3 kg. Find their total mass.

Answer Key

1. 12 kg.
2. 3 L per container.
3. Not enough; 2 L short.
4. Enough; 3 L extra.
5. 8 L.
6. 15 kg.

Step-by-Step Solutions

Follow each calculation, then check your own work.

Problem 1

1. Each of the 3 bags contributes 4 kg.
2. $3 \times 4 = 12$ kg. Check: $12 \div 3 = 4$ kg per bag.

Problem 2

1. Equal sharing gives $12 \div 4 = 3$ L per container.
2. Check: $4 \times 3 = 12$ L altogether.

Problem 3

1. Compare the volumes in the same unit: 7 L is less than 9 L.
2. The difference is $9 - 7 = 2$ L.

Problem 4

1. Compare the volumes in the same unit: 8 L is at least 5 L.
2. The difference is $8 - 5 = 3$ L.

Problem 5

1. Put the poured water back in the calculation: $6 + 2 = 8$ L.
2. Check: $8 - 2 = 6$ L remains.

Problem 6

1. Each of the 5 bags contributes 3 kg.
2. $5 \times 3 = 15$ kg. Check: $15 \div 5 = 3$ kg per bag.

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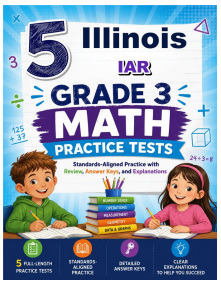

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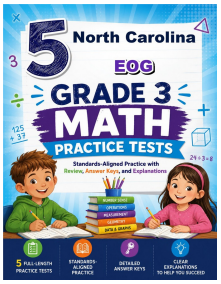

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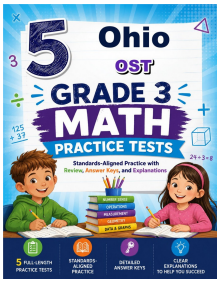

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