Liquid Volumes and Masses

Explore ideas and representations

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.

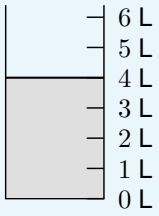
Worked example

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.

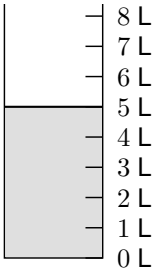
Answer: 4 L; 2 L more.



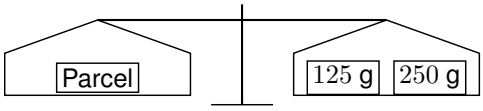
Practice Problems

Show your thinking.

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



2. A balanced scale has one parcel on the left and weights of 125 g and 250 g on the right. Find the parcel mass.



3. Two containers hold 3 L and 4 L. How much liquid is there altogether?

4. A bag has mass 600 g. A scoop removes 175 g. What mass remains?

5. Choose a sensible unit, kg or g, for a full school backpack. Write a reasonable label using 4.

6. Choose a sensible unit, g or kg, for one paper clip. Write a reasonable label using 1.

Answer Key

1. 5 L; 3 L more.
2. 375 g.
3. 7 L.
4. 425 g.
5. 4 kg.
6. 1 g.

Step-by-Step Solutions

Follow each calculation, then check your own work.

Problem 1

1. The liquid surface meets the 5-L mark.
2. The top numbered mark is 8 L; $8 - 5 = 3$ L more will reach it.

Problem 2

1. The two weights together have mass $125 + 250 = 375$ g.
2. A balanced scale has equal masses on both sides; the parcel therefore has mass 375 g.

Problem 3

1. Both amounts are measured in liters, so add $3 + 4 = 7$.
2. Check by removing one amount: $7 - 3 = 4$ L.

Problem 4

1. The mass decreases by 175 g: $600 - 175 = 425$.
2. Check the remaining and removed masses: $425 + 175 = 600$ g.

Problem 5

1. A full backpack is much heavier than a few paper clips, so kilograms are sensible.
2. The label 4 kg matches the mass and size of this object.

Problem 6

1. A paper clip is very light, so grams are sensible; kilograms describe much heavier objects.
2. The label 1 g matches the mass and size of this object.

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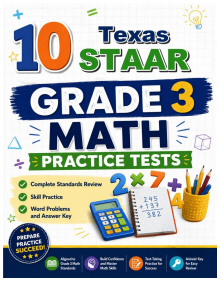

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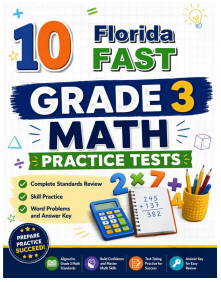

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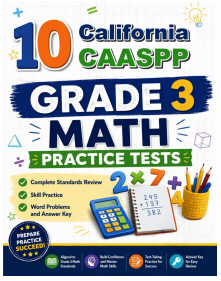

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