

Pour and Round

Estimate liquid volume with customary and metric units.

GRADE 4 • 4.MG.1.b.iii

4.MG.1.b.iii "Estimate and measure: liquid volume to the nearest U.S. Customary unit (cup, pint, quart, gallon) and nearest metric unit (milliliter, liter)."

NAME _____

DATE _____

CHOOSE THE CLOSEST UNIT

When a liquid amount is between two whole units, choose the closer one. Use the unit named in the question, such as a cup or a liter, and write that unit in your answer.

WORKED EXAMPLE

A water barrel holds 8.4 liters.
Estimate its volume to the nearest liter.

1. Find the two whole liters around 8.4: 8 L and 9 L.
2. 4 is closer to 8 than to 9.
3. Round down to 8 L.

Answer: 8 liters

PRACTICE 6 problems

- 1** A recipe needs $\frac{3}{4}$ cup of juice. Estimate the amount to the nearest cup.

ANSWER _____

- 2** A container has 26 fluid ounces of soup. Estimate the volume to the nearest pint. Use 16 fluid ounces = 1 pint.

ANSWER _____

- 3** A pitcher holds 11 cups of tea. Estimate the volume to the nearest quart. Use 4 cups = 1 quart.

ANSWER _____

- 4** A sports bottle contains 1,650 milliliters of water. Estimate the volume to the nearest liter.

ANSWER _____

- 5** A tiny paint bottle contains 47.6 milliliters of paint. Estimate the volume to the nearest milliliter.

ANSWER _____

- 6** A large water container holds 6.3 gallons. Estimate the volume to the nearest gallon.

ANSWER _____

APPLY IT Show your work

- 1** For a science fair project, Jordan collects 2,250 milliliters of rainwater. About how many liters of rainwater did Jordan collect?

WORK SPACE

ANSWER _____

- 2** Elena brings 29 cups of lemonade for her team's snack table. About how many gallons of lemonade does she have? Use $16 \text{ cups} = 1 \text{ gallon}$.

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

A student says that 25 cups of punch is about 1 gallon. Do you agree? Explain your reasoning. Use $16 \text{ cups} = 1 \text{ gallon}$.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	A recipe needs $\frac{3}{4}$ cup of juice. Estimate the amount to the nearest cup.	1 cup
2	A container has 26 fluid ounces of soup. Estimate the volume to the nearest pint. Use 16 fluid ounces = 1 pint.	2 pints
3	A pitcher holds 11 cups of tea. Estimate the volume to the nearest quart. Use 4 cups = 1 quart.	3 quarts
4	A sports bottle contains 1,650 milliliters of water. Estimate the volume to the nearest liter.	2 liters
5	A tiny paint bottle contains 47.6 milliliters of paint. Estimate the volume to the nearest milliliter.	48 milliliters
6	A large water container holds 6.3 gallons. Estimate the volume to the nearest gallon.	6 gallons

PART 2 • APPLY IT

1. **2 liters** 2,250 mL is closer to 2,000 mL than to 3,000 mL. Since 1,000 mL = 1 L, the estimate is 2 liters.
2. **2 gallons** Two gallons equal 32 cups. Since 29 cups is closer to 32 cups than to 16 cups, Elena has about 2 gallons.

CHALLENGE

No. 25 cups is closer to 32 cups, or 2 gallons, than to 16 cups, or 1 gallon.

Accept singular or plural unit names when the quantity is one. For estimate answers, require the stated unit and the correctly rounded amount.