

Pour and Convert

Change cups, pints, quarts, and gallons.

GRADE 4 • 4.MG.1.d.iii

4.MG.1.d.iii "Given the equivalent measure of one unit, solve problems, including those in context, by determining the equivalent measures within the U.S. Customary system for: liquid volume (cups, pints, quarts, and gallons)."

NAME _____

DATE _____

CONVERSION CHAIN

Use these facts: 2 cups = 1 pint, 2 pints = 1 quart, and 4 quarts = 1 gallon. Multiply when you change to a smaller unit, and divide when you change to a larger unit.

WORKED EXAMPLE

How many quarts are in 5 gallons?

- 1 gallon = 4 quarts.
- Multiply $5 \times 4 = 20$.
- So 5 gallons equals 20 quarts.

Answer: 20 quarts

PRACTICE 6 problems

1 How many pints are in 7 cups?

ANSWER _____

2 How many quarts are in 9 pints?

ANSWER _____

3 How many gallons are in 6 quarts?

ANSWER _____

4 How many quarts are in 4 gallons?

ANSWER _____

5 How many cups are in 3 pints?

ANSWER _____

6 How many cups are in 2 quarts?

ANSWER _____

APPLY IT Show your work

- 1** Maya brings 3 quarts of fruit punch to a game club. How many cups of fruit punch does she bring?

WORK SPACE

ANSWER _____

- 2** A school carnival has 2 gallons of water for a refill station. Each pitcher holds 1 quart. How many full pitchers can the station fill?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

A pet shelter fills 6 pitchers. Each pitcher holds 1 quart of water. Then 3 pints of water spill. How many cups of water remain?

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	How many pints are in 7 cups?	3 1/2 pints
2	How many quarts are in 9 pints?	4 1/2 quarts
3	How many gallons are in 6 quarts?	1 1/2 gallons
4	How many quarts are in 4 gallons?	16 quarts
5	How many cups are in 3 pints?	6 cups
6	How many cups are in 2 quarts?	8 cups

PART 2 • APPLY IT

1. **12 cups** Each quart has 4 cups. Multiply 3×4 to find 12 cups.
2. **8 pitchers** Each gallon has 4 quarts. Multiply 2×4 to find 8 quarts, so the station can fill 8 pitchers.

CHALLENGE**18 cups**

Accept mixed numbers or equivalent improper fractions, such as $3 \frac{1}{2}$ pints or $\frac{7}{2}$ pints. Students may use a conversion chain with more than one step.