

Homework & Practice 6-3

Solve Multi-Step Problems

Another Look!

A family brought 160 one-pint servings of lemonade to a community picnic. Family members drank 98 servings. How many whole gallons of lemonade did the family have left?



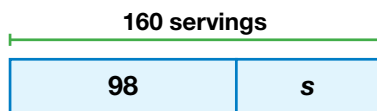
Use diagrams and equations to help answer the hidden question and the original question.



1 gallon = 8 one-pint servings

Find the hidden question and use a diagram and equation to answer it.

Hidden Question: How many one-pint servings of lemonade did the family have left?



$$160 - 98 = s$$

$$s = 62$$

The family had 62 one-pint servings left.

Use the answer to the hidden question to answer the original question.

Original Question: How many whole gallons of lemonade did the family have left?

$$62 \div 8 = g$$

$$g = 7 \text{ R}6$$

The family had 7 whole gallons of lemonade left.

For 1–2, draw bar diagrams and write equations to solve each problem.

- Kareem has 216 role-playing game cards. His goal is to collect all 15 sets of cards. There are 72 cards in a set. How many more cards does Kareem need to reach his goal?
- Nicole has \$9 to spend on cards. She finds friends with the same amount of money to split the cost of a set. One set costs \$27. Each friend gets the same number of cards. How many cards does each friend get?

3. **Math and Science** A power plant has 4 tons of coal. A ton of coal produces 2,460 kilowatt hours of electricity. Is this enough to power 9 light bulbs for a year? Explain.



4. **MP. 8 Generalize** Tina practiced piano for 15 hours last month and 45 hours this month.
- Use multiplication to write a statement comparing the hours Tina practiced during the two months.
 - Use addition to write a statement comparing the hours Tina practiced during the two months.

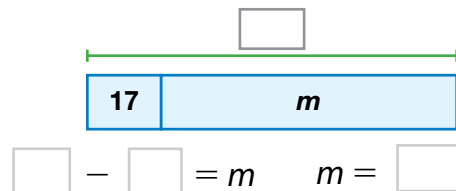
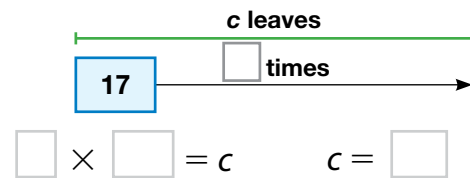
5. **Higher Order Thinking** Jenny washed dishes 4 times as many times as her brother last month. Her brother washed dishes 8 times. Jenny said she could multiply 3 times 8 to find how many more times she washed dishes than her brother. Is Jenny correct? Explain.

Common Core Assessment

6. Raj collected 17 leaves during the field trip. His goal is to collect 5 times as many leaves. How many more leaves does Raj need? Complete each bar diagram and equation.



Use the first bar diagram to find Raj's goal. Use the second bar diagram to find how many more leaves Raj needs.



Raj needs more leaves.