

Lesson 8 Multi-Step Problem Solving

Multi-Step Example

William has $15\frac{3}{5}$ quarts of paint. He equally divided the paint into 3 two-gallon containers. How many gallons of paint are in each container? Express your answer as a decimal. 7.EE.3, MP 1

Use a problem-solving model to solve this problem.

1 Understand

Read the problem. Circle the information you know. Underline what the problem is asking you to find.

2 Plan

What will you need to do to solve the problem? Write your plan in steps.

Step 1 Convert quarts to _____ by dividing by 4.

Step 2 Then divide the quotient by ____ to determine how many gallons are in each container.

3 Solve

Use your plan to solve the problem. Show your steps.

Convert quarts to gallons.

$$15\frac{3}{5} \div 4 = \underline{\hspace{2cm}}$$

Divide by 3 to determine the amount in each container.

$$\underline{\hspace{2cm}} \div 3 = \underline{\hspace{2cm}}$$

Each container holds _____ gallons of paint.

4 Check

How do you know your solution is accurate?

Read to Succeed!



Every gallon has 4 quarts. Since you're converting from a smaller unit (quarts) to a larger unit (gallons), your answer needs to be a smaller number, so you will need to divide.

Lesson 8 *(continued)*

Use a problem-solving model to solve each problem.

- 1 A family-sized container of macaroni holds sixteen $\frac{3}{4}$ -cup servings. A chef prepares meals using $1\frac{1}{3}$ cups in each bowl. How many bowls can the chef prepare from one family-sized container? **7.EE.3, MP 1**
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- 2 The side length of Cube 1 is $2\frac{1}{2}$ inches. Cube 2 has a side length of 5 inches. How many times larger is the volume of Cube 2? **7.EE.3, MP 1**
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- 3 The table shows how much Rita paid for beans at the local market. How much more per pound will it cost to buy the most expensive beans per pound than the cheapest beans per pound? **7.NS.3, MP 2**

Type	Weight (lb)	Cost (\$)
Black beans	4	6
Lentil beans	$3\frac{1}{8}$	4
Kidney beans	$6\frac{1}{4}$	11

- 4 **H.O.T. Problem** Compare the mean of the data below with and without the outlier, which is the extremely high data value. Which mean represents the majority of the data more closely? Explain. **7.NS.2c, MP 2**


