

3.15 Multistep Problems with Fractions

Chapter 3: Factors, Multiples, and Fractions

Name: _____

Date: _____

Class/Period: _____

Problem 3.209 Directions:

Use the KNOWS process or write a labeled sequence of equations.

A school garden is $12\frac{1}{2}$ meters long and $8\frac{3}{4}$ meters wide. One-third of its area is planted with tomatoes. What area is not planted with tomatoes?

Problem 3.212 Directions:

Use the KNOWS process or write a labeled sequence of equations.

A baker makes $2\frac{1}{2}$ batches of muffins. Each batch uses $1\frac{3}{5}$ cups of milk. The milk comes from a 6-cup container. How much milk remains?

Problem 3.210 Directions:

Use the KNOWS process or write a labeled sequence of equations.

Mina has $18\frac{3}{5}$ meters of ribbon. She uses $2\frac{1}{4}$ meters for each of 5 projects. How much remains?

Problem 3.213 Directions:

Use the KNOWS process or write a labeled sequence of equations.

A cyclist rides $7\frac{1}{2}$ miles in the morning and $5\frac{3}{4}$ miles in the afternoon on each of 3 days. How far does the cyclist travel?

Problem 3.211 Directions:

Use the KNOWS process or write a labeled sequence of equations.

A tank is $\frac{3}{4}$ full and contains 27 liters. What is its total capacity? If $5\frac{1}{2}$ liters are then removed, how much remains?

Problem 3.214 Directions:

Use the KNOWS process or write a labeled sequence of equations.

A class has 32 students. Three-eighths bring lunch, one-fourth buy pizza, and the rest buy sandwiches. How many students buy sandwiches?

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Problem 3.215 Directions:

Use the KNOWS process or write a labeled sequence of equations.

A $9\frac{1}{3}$ -foot board is cut into pieces $1\frac{1}{6}$ feet long. How many complete pieces are made? Is any board left?

Problem 3.216 Directions:

Use the KNOWS process or write a labeled sequence of equations.

A recipe makes 24 cookies using $2\frac{1}{4}$ cups of flour. How much flour is needed for 40 cookies if the recipe is scaled proportionally?

Problem 3.217 Directions:

Use the KNOWS process or write a labeled sequence of equations.

A community center has 36 yards of fabric. It uses $\frac{2}{9}$ of the fabric for banners and then cuts the remaining fabric into pieces that are each $1\frac{1}{3}$ yards long.

Part A. Create a labeled model or sequence of equations for the situation.

Part B. Determine how many complete pieces can be cut.

Part C. Determine whether any fabric remains and explain how your answer is shown in your model.

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Problem 3.218 Directions:

Use the KNOWS process or write a labeled sequence of equations.

Two teams collect food. Team A fills 8 boxes with $3\frac{3}{4}$ pounds in each box. Team B collects $\frac{5}{6}$ as much food as Team A. All the food is repacked equally into 9 containers.

Part A. Find the amount collected by each team.

Part B. Find the total amount collected.

Part C. Determine the amount in each new container and justify the order of your steps.