Name _____

Solve Problems About Liquid Volume and Mass

Lesson 10.9

COMMON CORE STANDARD—3.MD.2
Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.

Write an equation and solve the problem.

1. Luis was served 145 grams of meat and 217 grams of vegetables at a meal. What was the total mass of the meat and the vegetables?

Think: Add to find how much in all.

$145 \oplus 217 = 362$ **362 grams**

2. The gas tank of a riding mower holds 5 liters of gas. How many 5-liter gas tanks can you fill from a full 20-liter gas can?

$20 \div 5 = 4$ **4 gas tanks**

3. To make a lemon-lime drink, Mac mixed 4 liters of lemonade with 2 liters of limeade. How much lemon-lime drink did Mac make?

$4 \oplus 2 = 6$ **6 liters**

4. A nickel has a mass of 5 grams. There are 40 nickels in a roll of nickels. What is the mass of a roll of nickels?

$5 \otimes 40 = 200$ **200 grams**

5. Four families share a basket of 16 kilograms of apples equally. How many kilograms of apples does each family get?

$16 \div 4 = 4$ **4 kilograms**

6. For a party, Julia made 12 liters of fruit punch. There were 3 liters of fruit punch left after the party. How much fruit punch did the people drink at the party?

$12 \ominus 3 = 9$ **9 liters**

Problem Solving Real World

7. Zoe's fish tank holds 27 liters of water. She uses a 3-liter container to fill the tank. How many times does she have to fill the 3-liter container in order to fill her fish tank?

9 times

8. Adrian's backpack has a mass of 15 kilograms. Theresa's backpack has a mass of 8 kilograms. What is the total mass of both backpacks?

23 kilograms

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Lesson Check (3.MD.2)

1. Mickey's beagle has a mass of 15 kilograms. His dachshund has a mass of 13 kilograms. What is the combined mass of the two dogs?

28 kilograms

2. Lois put 8 liters of water in a bucket for her pony. At the end of the day, there were 2 liters of water left. How much water did the pony drink?

6 liters

Spiral Review (3.OA.3, 3.NF.3d, 3.MD.1, 3.MD.2)

3. Josiah has 3 packs of toy animals. Each pack has the same number of animals. Josiah gives 6 animals to his sister Stephanie. Then Josiah has 9 animals left. How many animals were in each pack?

5 animals

4. Tom jogged $\frac{1}{10}$ mile, Betsy jogged $\frac{5}{10}$ mile, and Sue jogged $\frac{2}{10}$ mile. Who jogged a distance longer than $\frac{4}{10}$ mile?

Betsy

5. Bob started mowing at 9:55 A.M. It took him 25 minutes to mow the front yard and 45 minutes to mow the back yard. At what time did Bob finish mowing?

11:05 A.M.

6. Juliana wants to find the mass of a watermelon. What unit should she use?

kilogram

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