EUREKA MATH

A STORY OF UNITS

Mathematics Curriculum

Grade 4 • MODULE 2

Unit Conversions and Problem Solving with Metric Measurement

Problem Sets

Info for parents: http://bit.ly/pusdmath

Video tutorials: http://embarc.online

Version 3

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GRADE 4 • MODULE 2

Unit Conversions and Problem Solving with Metric Measurement

Name _____ Date _____

1. Convert the measurements.

a. 1 km = _____ m

b. 4 km = _____ m

c. 7 km = _____ m

d. _____ km = 18,000 m

e. 1 m = _____ cm

f. 3 m = _____ cm

g. 80 m = _____ cm

h. _____ m = 12,000 cm

2. Convert the measurements.

a. 3 km 312 m = _____ m

b. 13 km 27 m = _____ m

c. 915 km 8 m = _____ m

d. 3 m 56 cm = _____ cm

e. 14 m 8 cm = _____ cm

f. 120 m 46 cm = _____ cm

3. Solve.

a. 4 km − 280 m

b. 1 m 15 cm − 34 cm

c. Express your answer in the smaller unit:
1 km 431 m + 13 km 169 m

d. Express your answer in the smaller unit:
231 m 31 cm − 14 m 48 cm

e. 67 km 230 m + 11 km 879 m

f. 67 km 230 m − 11 km 879 m

Use a tape diagram to model each problem. Solve using a simplifying strategy or an algorithm, and write your answer as a statement.

4. The length of Carter's driveway is 12 m 38 cm. His neighbor's driveway is 4 m 99 cm longer. How long is his neighbor's driveway?

5. Enya walked 2 km 309 m from school to the store. Then, she walked from the store to her home. If she walked a total of 5 km, how far was it from the store to her home?

6. Rachael has a rope 5 m 32 cm long that she cut into two pieces. One piece is 249 cm long. How many centimeters long is the other piece of rope?

7. Jason rode his bike 529 fewer meters than Allison. Jason rode 1 km 850 m. How many meters did Allison ride?

Name _____ Date _____

1. Complete the conversion table.

Mass	
kg	**g**
1	1,000
3	
	4,000
17	
	20,000
300	

2. Convert the measurements.

a. 1 kg 500 g = _____ g

b. 3 kg 715 g = _____ g

c. 17 kg 84 g = _____ g

d. 25 kg 9 g = _____ g

e. _____ kg _____ g = 7,481 g

f. 210 kg 90 g = _____ g

3. Solve.

a. 3,715 g – 1,500 g

b. 1 kg – 237 g

c. Express the answer in the smaller unit:
25 kg 9 g + 24 kg 991 g

d. Express the answer in the smaller unit:
27 kg 650 g – 20 kg 990 g

e. Express the answer in mixed units:
14 kg 505 g – 4,288 g

f. Express the answer in mixed units:
5 kg 658 g + 57,481 g

Use a tape diagram to model each problem. Solve using a simplifying strategy or an algorithm, and write your answer as a statement.

4. One package weighs 2 kilograms 485 grams. Another package weighs 5 kilograms 959 grams. What is the total weight of the two packages?

5. Together, a pineapple and a watermelon weigh 6 kilograms 230 grams. If the pineapple weighs 1 kilogram 255 grams, how much does the watermelon weigh?

6. Javier's dog weighs 3,902 grams more than Bradley's dog. Bradley's dog weighs 24 kilograms 175 grams. How much does Javier's dog weigh?

7. The table to the right shows the weight of three Grade 4 students. How much heavier is Isabel than the lightest student?

Student	Weight
Isabel	35 kg
Irene	29 kg 38 g
Sue	29,238 g

Name _____ Date _____

1. Complete the conversion table.

Liquid Capacity	
L	**mL**
1	1,000
5	
38	
	49,000
54	
	92,000

2. Convert the measurements.

a. 2 L 500 mL = _____ mL

b. 70 L 850 mL = _____ mL

c. 33 L 15 mL = _____ mL

d. 2 L 8 mL = _____ mL

e. 3,812 mL = _____ L _____ mL

f. 86,003 mL = _____ L _____ mL

3. Solve.

a. 1,760 mL + 40 L

b. 7 L − 3,400 mL

c. Express the answer in the smaller unit:
25 L 478 mL + 3 L 812 mL

d. Express the answer in the smaller unit:
21 L − 2 L 8 mL

e. Express the answer in mixed units:
7 L 425 mL − 547 mL

f. Express the answer in mixed units:
31 L 433 mL − 12 L 876 mL

Use a tape diagram to model each problem. Solve using a simplifying strategy or an algorithm, and write your answer as a statement.

4. To make fruit punch, John's mother combined 3,500 milliliters of tropical drink, 3 liters 95 milliliters of ginger ale, and 1 liter 600 milliliters of pineapple juice.

   a. Order the quantity of each drink from least to greatest.

   b. How much punch did John's mother make?

5. A family drank 1 liter 210 milliliters of milk at breakfast. If there were 3 liters of milk before breakfast, how much milk is left?

6. Petra's fish tank contains 9 liters 578 milliliters of water. If the capacity of the tank is 12 liters 455 milliliters of water, how many more milliliters of water does she need to fill the tank?

Name _____ Date _____

1. Complete the table.

Smaller Unit	Larger Unit	How Many Times as Large as?
one	hundred	100
centimeter		100
one	thousand	1,000
gram		1,000
meter	kilometer	
milliliter		1,000
centimeter	kilometer	

2. Fill in the units in word form.

a. 429 is 4 hundreds 29 _____.

b. 429 cm is 4 _____ 29 cm.

c. 2,456 is 2 _____ 456 ones.

d. 2,456 m is 2 _____ 456 m.

e. 13,709 is 13 _____ 709 ones.

f. 13,709 g is 13 kg 709 _____.

3. Fill in the unknown number.

a. _____ is 456 thousands 829 ones.

b. _____ mL is 456 L 829 mL.

4. Use words, equations, or pictures to show and explain how metric units are like and unlike place value units.

5. Compare using >, <, or =.

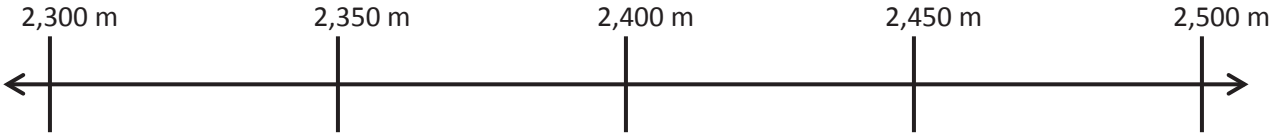
   a. 893,503 mL ◯ 89 L 353 mL

   b. 410 km 3 m ◯ 4,103 m

   c. 5,339 m ◯ 533,900 cm

6. Place the following measurements on the number line:

2 km 415 m 2,379 m 2 km 305 m 245,500 cm



7. Place the following measurements on the number line:

2 kg 900 g 3,500 g 1 kg 500 g 2,900 g 750 g

Name _____ Date _____

Model each problem with a tape diagram. Solve and answer with a statement.

1. The potatoes Beth bought weighed 3 kilograms 420 grams. Her onions weighed 1,050 grams less than the potatoes. How much did the potatoes and onions weigh together?

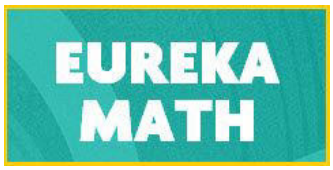
2. Adele let out 18 meters 46 centimeters of string to fly her kite. She then let out 13 meters 78 centimeters more before reeling back in 590 centimeters. How long was her string after reeling it in?

3. Shyan's barrel contained 6 liters 775 milliliters of paint. She poured in 1 liter 118 milliliters more. The first day, Shyan used 2 liters 125 milliliters of the paint. At the end of the second day, there were 1,769 milliliters of paint remaining in the barrel. How much paint did Shyan use on the second day?

4. On Thursday, the pizzeria used 2 kilograms 180 grams less flour than they used on Friday. On Friday, they used 12 kilograms 240 grams. On Saturday, they used 1,888 grams more than on Friday. What was the total amount of flour used over the three days?

5. The gas tank in Zachary's car has a capacity of 60 liters. He adds 23 liters 825 milliliters of gas to the tank, which already has 2,050 milliliters of gas. How much more gas can Zachary add to the gas tank?

6. A giraffe is 5 meters 20 centimeters tall. An elephant is 1 meter 77 centimeters shorter than the giraffe. A rhinoceros is 1 meter 58 centimeters shorter than the elephant. How tall is the rhinoceros?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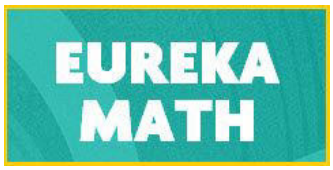
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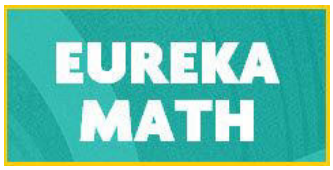
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