LESSON MAKER PRO

Unit Switch

Turn larger units into smaller units.

GRADE 4 · 4.MD.1

4.MD.1 "Know relative sizes of measurement units within one system of units including km, m, cm, mm; kg, g, mg; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit..."

NAME _____ DATE _____

MULTIPLY TO CONVERT

A larger unit contains many smaller units. To change a measurement to a smaller unit, multiply by the number of smaller units in 1 larger unit. Write the smaller unit with your answer.

WORKED EXAMPLE

A rope is 7 ft long. How many inches long is it?

1. 1 ft = 12 in.
2. 7 × 12 = 84.

Answer: 84 in.

PRACTICE 6 problems

1 Use 1 km = 1,000 m. How many meters are in 3 km?

ANSWER _____

2 Use 1 kg = 1,000 g. How many grams are in 4 kg?

ANSWER _____

3 Use 1 L = 1,000 mL. How many milliliters are in 6 L?

ANSWER _____

4 Use 1 hr = 60 min. How many minutes are in 2 hr?

ANSWER _____

5 Use 1 lb = 16 oz. How many ounces are in 9 lb?

ANSWER _____

6 Complete the two blank cells in the table. Use the first row to find the pattern.

EQUAL LENGTHS

Centimeters (cm)	Millimeters (mm)
1	10
2	___
3	___

ANSWER _____

APPLY IT Show your work

1 Your class makes an 8 m paper chain for a school celebration. How long is the chain in centimeters? Use 1 m = 100 cm.

WORK SPACE

ANSWER _____

2 A student records a 13-minute video tour of the school garden. How many seconds long is the video? Use 1 min = 60 sec.

WORK SPACE

ANSWER _____

CHALLENGE One step up

A 2 kg bag of clay is used for art. The class uses 350 g. How many grams of clay are left? Show the conversion and subtraction. Use 1 kg = 1,000 g.

WORK SPACE AND ANSWER

ANSWER KEY

Unit Switch

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PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	Use 1 km = 1,000 m. How many meters are in 3 km?	**3,000 m**
2	Use 1 kg = 1,000 g. How many grams are in 4 kg?	**4,000 g**
3	Use 1 L = 1,000 mL. How many milliliters are in 6 L?	**6,000 mL**
4	Use 1 hr = 60 min. How many minutes are in 2 hr?	**120 min**
5	Use 1 lb = 16 oz. How many ounces are in 9 lb?	**144 oz**
6	Complete the two blank cells in the table. Use the first row to find the pattern.	**2 cm = 20 mm; 3 cm = 30 mm**

PART 2 · APPLY IT

1. **800 cm** Multiply 8 × 100 to get 800 cm.
2. **780 sec** Multiply 13 × 60 to get 780 sec.

CHALLENGE

2 × 1,000 = 2,000 g; 2,000 - 350 = 1,650 g left

Accept answers with equivalent unit names, such as grams instead of g. For the challenge, look for both the conversion to 2,000 g and the subtraction.