

Converting Metric Units

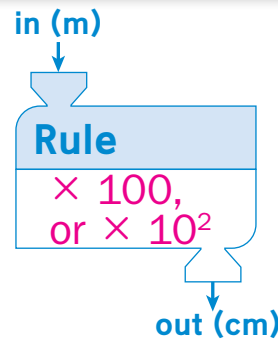
Lesson 6-3

DATE

TIME

Math Message

- 1 There are 100 centimeters (cm) in a meter (m). Use this information to write a rule in the function machine. Then complete the “What’s My Rule?” table at the right.

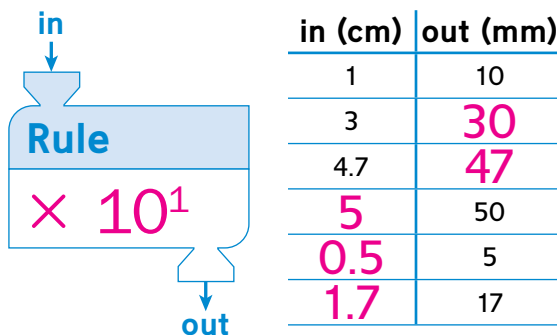


in (m)	out (cm)
1	100
2	200
3	300
4	400
5	500

SRB
215–216,
328

Convert between the given units to complete the “What’s My Rule?” tables below. Use exponential notation to write each rule.

- 2 a. Convert between centimeters (cm) and millimeters (mm).

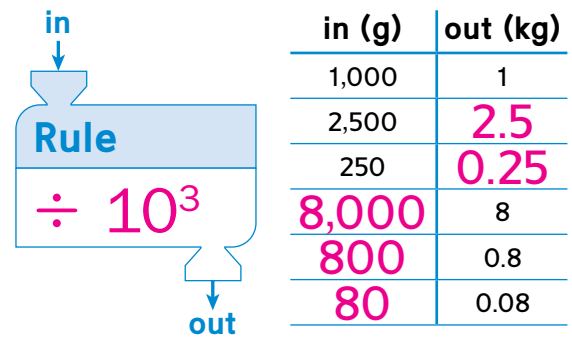


- b. Write a rule you could use to convert from millimeters to centimeters.

Hint: How can you find the *in* number if you know the *out* number?

$$\div 10^1$$

- 3 a. Convert between grams (g) and kilograms (kg).



- b. Write a rule you could use to convert from kilograms to grams.

Hint: How can you find the *in* number if you know the *out* number?

$$\times 10^3$$

- 4 There are 43 milligrams of caffeine in a bottle of iced tea. How many grams of caffeine is that? Answer the questions below to solve.

- a. What units do you need to convert?

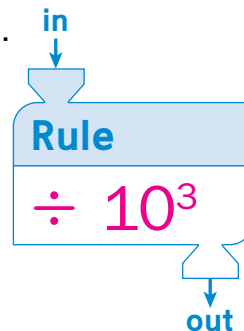
From mg to g

- b. How are those units related?

$$1,000 \text{ mg} = 1 \text{ g}$$

- c. Write your answers to Parts a and b in the “What’s My Rule?” table. Fill in the rule.

- d. How many grams is 43 milligrams? 0.043 g



in (<u>mg</u>)	out (<u>g</u>)
1,000	1
43	0.043