

In-Class Practice

1 I don't understand yet.

2 I can do it with help.

3 I can do it on my own.

4 I can teach someone else.

3. **VOCABULARY** How can you tell when a rate is a unit rate?

The rate is for 1

4. **WRITING** Explain why rates are usually written as unit rates.

It is easier to compare ~~other~~ if we know how many per one first

Find the unit rate. → DIVIDE

5. \$1.32 for 12 ounces

$$1.32 \div 12 = 0.11$$

$$\$0.11 : 1 \text{ oz}$$

6. $\frac{1}{4}$ gallon for every $\frac{3}{10}$ mile

$$\frac{1}{4} \div \frac{3}{10} = \frac{5}{6}$$

$$\frac{5}{6} \text{ gal} : 1 \text{ mi}$$

7. **FINDING UNIT RATES** Find the missing values in the ratio table. Then write the unit rate of grams per cup and the unit rate of cups per gram.

To find unit rate divide

$$y \div x$$

$$\frac{2}{3} \div \frac{5}{2} = \frac{4}{15}$$

x	Grams	$\frac{5}{2}$	$\frac{5}{8}$	1	$\frac{15}{4}$	15
y	Cups	$\frac{2}{3}$	$\frac{1}{6}$	$\frac{4}{15}$	1	4

$$\frac{5}{2} \cdot \frac{4}{15} = \frac{2}{3}$$

$$\frac{1}{6} \div \frac{4}{15} = \frac{5}{8}$$

$$1 \cdot \frac{4}{15} = \frac{4}{15}$$

$$\frac{15}{4} \cdot \frac{4}{15} = 1$$

$$4 \div \frac{4}{15} = 15$$

Going from cups to grams $\div \frac{4}{15}$

Going from grams to cups $\cdot \frac{4}{15}$

Concepts, Skills, & Problem Solving

WRITING RATES Find the number of degrees moved by the minute hand of a clock in the given amount of time. Explain your reasoning. (See Exploration 1.)

8. $\frac{2}{3}$ hour

9. $\frac{7}{12}$ hour

10. $1\frac{1}{4}$ hours

FINDING UNIT RATES Find the unit rate. (See Example 1.)

11. 180 miles in 3 hours

60 mi : 1 hr

12. 256 miles per 8 gallons

32 mi : 1 gal

▶ 13. $\frac{1}{2}$ pound : 5 days

$\frac{1}{10}$ lb : 1 day

14. 4 grams for every $\frac{3}{4}$ serving

$5\frac{1}{3}$ g : 1 serving

15. \$9.60 for 4 pounds

16. \$4.80 for 6 cans

17. 297 words in 5.5 minutes

18. $\frac{1}{3}$ kilogram : $\frac{2}{3}$ foot

19. $\frac{5}{8}$ ounce per $\frac{1}{4}$ pint

20. $21\frac{3}{4}$ meters in $2\frac{1}{2}$ hours

USING TOOLS Find the missing values in the ratio table. Then write the equivalent ratios.

21.

Calories	25	50		
Servings	$\frac{1}{3}$		1	$\frac{4}{3}$

22.

Oxygen (liters)	4	$\frac{4}{3}$		16
Time (minute)	$\frac{3}{4}$		1	