

# KEY

NAME

DATE

PERIOD

10

## Unit 2, Lesson 12: Navigating a Table of Equivalent Ratios

1. Priya collected 2,400 grams of pennies in a fundraiser. Each penny has a mass of 2.5 grams. How much money did Priya raise? If you get stuck, consider using the table.

number of pennies	mass in grams
	2.5
	10
960	2,400

OR  
 $2400 \div 2.5 =$   
960 pennies

12

2. Kiran reads 5 pages in 20 minutes. He spends the same amount of time per page. How long will it take him to read 11 pages? If you get stuck, consider using the table.

time in minutes	number of pages
20	5
4	1
44	11

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3. Mai is making personal pizzas. For 4 pizzas, she uses 10 ounces of cheese.

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number of pizzas	ounces of cheese
4	10
1	2.5
15	37.5

*Handwritten notes:* A bracket on the left side of the table groups the rows (4, 1, 15) with a multiplier of 15. A bracket on the right side groups the rows (10, 2.5, 37.5) with a multiplier of 15.

a. How much cheese does Mai use per pizza? **2.5 oz**

b. At this rate, how much cheese will she need to make 15 pizzas? **37.5 oz**

4. Clare is paid \$90 for 5 hours of work. At this rate, how many seconds does it take for her to earn 25 cents?  
*Handwritten work:*  $\$90 \div 5 = \$18$  per 1 hour.  $1 \text{ hour} = 3600 \text{ sec}$ .  $18 \div 3600 = .005 / \text{sec}$ .  $.25 \div .005 = 50 \text{ sec}$

5. A car that travels 20 miles in  $\frac{1}{2}$  hour at constant speed is traveling at the same speed as a car that travels 30 miles in  $\frac{3}{4}$  hour at a constant speed. Explain or show why.

*Handwritten work:*

Distance:  $20 \times 2 = 40$ ;  $30 \div \frac{3}{4} = 40$

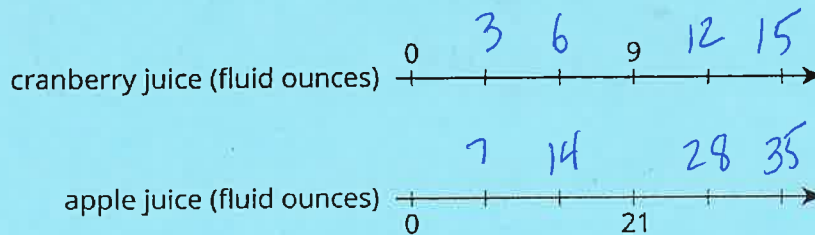
Time:  $\frac{1}{2} \text{ hr} \times 2 = 1$ ;  $\frac{3}{4} \text{ hr} \times \frac{4}{3} = 1$

both are 40 mph OR

mi	hr
20	$\frac{1}{2}$
40	1
60	$1\frac{1}{2}$
30	$\frac{3}{4}$

(from Unit 2, Lesson 10)

6. Lin makes her favorite juice blend by mixing cranberry juice with apple juice in the ratio shown on the double number line. Complete the diagram to show smaller and larger batches that would taste the same as Lin's favorite blend.



(from Unit 2, Lesson 6)

**CHALLENGE PROBLEM**

7. Each of these is a pair of equivalent ratios. For each pair, explain why they are equivalent ratios or draw a representation that shows why they are equivalent ratios.

a.  $600 : 450$  and  $60 : 45$

b.  $60 : 45$  and  $4 : 3$

c.  $600 : 450$  and  $4 : 3$