

# Unit 2 Lesson 18: Equivalent Ratios Have the Same Unit Rates

## 1 Which One Doesn't Belong: Comparing Speeds (Warm up)

### Student Task Statement

Which one doesn't belong? Be prepared to explain your reasoning.

5 miles in 15 minutes

20 miles per hour

3 minutes per mile

32 kilometers per hour

## 2 Price of Burritos

### Student Task Statement

- Two burritos cost \$14. Complete the table to show the cost for 4, 5, and 10 burritos at that rate. Next, find the cost for a single burrito in each case.

number of burritos	cost in dollars	unit price (dollars per burrito)
2	14	
4		
5		
10		
$b$		

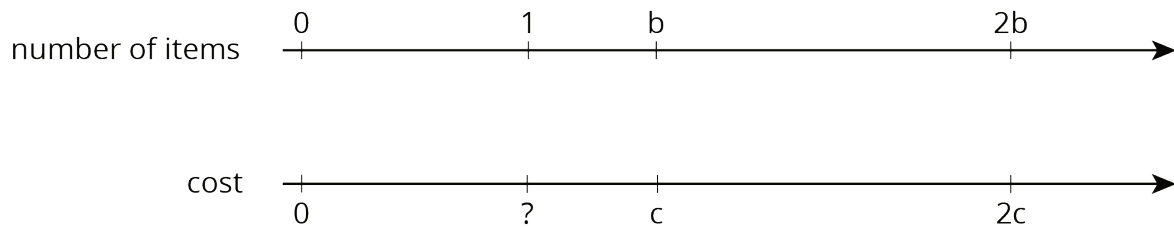
- What do you notice about the values in this table?

3. Noah bought  $b$  burritos and paid  $c$  dollars. Lin bought twice as many burritos as Noah and paid twice the cost he did. How much did Lin pay per burrito?

	number of burritos	cost in dollars	unit price (dollars per burrito)
Noah	$b$	$c$	$\frac{c}{b}$
Lin	$2 \cdot b$	$2 \cdot c$	

4. Explain why, if you can buy  $b$  burritos for  $c$  dollars, or buy  $2 \cdot b$  burritos for  $2 \cdot c$  dollars, the cost per item is the same in either case.

### Activity Synthesis



### 3 Making Bracelets

#### Student Task Statement

1. Complete the table. Then, explain the strategy you used to do so.

time in hours	number of bracelets	speed (bracelets per hour)
2		6
5		6
7		6
	66	6
	100	6



2. Here is a partially filled table from an earlier activity. Use the same strategy you used for the bracelet problem to complete this table.

number of burritos	cost in dollars	unit price (dollars per burrito)
	14	7
	28	7
5		7
10		7

3. Next, compare your results with those in the first table in the previous activity. Do they match? Explain why or why not.

## 4 How Much Applesauce? (Optional)

### Student Task Statement

It takes 4 pounds of apples to make 6 cups of applesauce.

1. At this rate, how much applesauce can you make with:
  - a. 7 pounds of apples?
  - b. 10 pounds of apples?
2. How many pounds of apples would you need to make:
  - a. 9 cups of applesauce?
  - b. 20 cups of applesauce?

pounds of apples	cups of applesauce
4	6
7	
10	
	9
	20