Name_____ Date_____ Period_____

LESSON 3-4 · SESSION 2 · PRACTICE · FORM B

Interpreting Points on Ratio Graphs

Learning target – I can explain what a point on a ratio graph means in the situation it describes. · 6.RP.A.3a

REMEMBER

- A point (x, y) says x of one thing goes with y of another. **Read the axis labels.**
- The **unit rate point** is (1, r). If x is not 1, divide: for (3, 15), 15 ÷ 3 = 5, so (1, 5).
- To find x from y, divide y by the unit rate: rate 5, y = 30, so x = 6.

WORKED EXAMPLE

x = pounds of apples, y = cost in dollars. The line passes through (4, 12). Find the cost of 6 pounds.

Step 1 Read it: 4 pounds cost $12.

Step 2 Divide: 12 ÷ 4 = 3, so the unit rate point is (1, 3).

Step 3 Multiply: 6 × 3 = 18, so (6, 18).

Answer **$3 per pound; 6 pounds cost $18**

WORDS **unit rate point** *(punto de tasa unitaria)* · **interpret** *(interpretar)* · **coordinates** *(coordenadas)*

PRACTICE

show your work · label units

1. Find the unit rate point (1, r) for a line through each point.

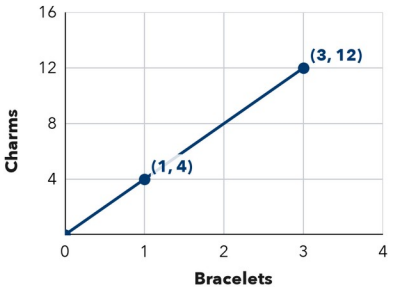
a. (2, 14) _____

b. (5, 30) _____

c. (4, 6) _____

d. (3, 27) _____

2. **Jalen's Charms.** The graph shows bracelets (x) and charms (y).



a. What does (0, 0) mean? _____

b. What does (1, 4) mean? _____

c. Charms for 7 bracelets: _____ charms

3. **Water Pump.** A graph of minutes (x) and gallons (y) passes through (1, 6) and (5, 30).

Hint *Divide the gallons by the unit rate.*

a. Unit rate: _____ gallons per minute

b. What does (5, 30) mean? _____

c. Minutes to pump 48 gallons: _____ minutes

4. **Snow Shoveling.** A graph of driveways (x) and dollars (y) passes through (1, 12) and (4, 48). What is the pay for 7 driveways?

Hint *Use the unit rate point (1, 12).*

Show your work.

Answer_____ dollars

5. **Drone Flight.** A graph of seconds (x) and meters (y) passes through (1, 11). What point shows 6 seconds?

Show your work.

Point_____

6. **Robot Speed.** A graph of seconds (x) and meters (y) passes through (3, 15).

Hint *Divide 15 by 3 to get the unit rate.*

a. Unit rate point: _____

b. Distance in 9 seconds: _____ m

Show your work.

7. **Bike Racks.** A graph of racks (x) and spaces (y) passes through (3, 18). Find the unit rate point. Is (8, 48) on the line?

Hint *Check: does 8 × the unit rate equal 48?*

Show your work.

Yes or no_____

8. **Two Bike Riders.** Both graphs show hours (x) and kilometers (y). Rider 1's line passes through (2, 30). Rider 2's passes through (3, 36).

a. Each rider's unit rate: _____

b. Whose line is steeper? What does that mean? _____

c. How far ahead is the faster rider after 5 hours? _____ km

Show your work.

FIND THE ERROR

explain the mistake, then fix it

9. **Priya's Work.** A graph of tickets (x) and cost in dollars (y) passes through (1, 6). Priya says, "This means 6 tickets cost 1 dollar." Explain her mistake and say what the point really means.

TEST PRACTICE

choose the best answer

10. A point (3, 24) on a graph of boxes (x) and pens (y) means –

A 24 boxes hold 3 pens

B 3 boxes hold 24 pens

C each box holds 3 pens

D there are 27 pens in all

11. A ratio graph passes through (6, 42). The unit rate is –

A 36 **B** 48 **C** 7 **D** 252

SELF-CHECK CODE *find your answer · copy its letter into that problem's box · spell a math word*

288 Z	11 X	(6, 66) T	15 D	45 E	8 A	28 H	(1, 1.5) C	84 R	(66, 6) Q

#1c	#2c	#3c	#4	#5	#6b	#8c

CHECK YOURSELF ☐ I can do this on my own ☐ I need a little help ☐ I have a question about #___