Name_____ Date_____ Period_____

LESSON 3-3 · SESSION 1 · PRACTICE · FORM A

Equivalent Ratios and Tables

Learning target – I can build a ratio table by scaling both rows by the same factor. · 6.RP.A.3a

REMEMBER

- **Equivalent ratios** make the same comparison. Multiply or divide **both** terms by the **same** number.
- In a **ratio table**, each column is one pair. Find the factor, then use it on the other row.
- Adding the same number to both terms does **not** keep the ratio.

WORKED EXAMPLE

A mix uses 5 scoops of powder for every 2 cups of water. How much water for 15 scoops?

Step 1 Find the factor: 15 ÷ 5 = 3.

Step 2 Multiply the water by 3 too: 2 × 3 = 6.

Step 3 Check: 15 : 6 ÷ 3 = 5 : 2.

Answer **15 scoops go with 6 cups of water**

WORDS **equivalent ratios** *(razones equivalentes)* · **ratio table** *(tabla de razones)* · **scale factor** *(factor de escala)*

PRACTICE

show your work · label units

1. Find the missing number.

a. 4 × ___ = 20

b. ___ × 3 = 19.2

c. 2.3 × ___ = 18.4

d. ___ ÷ 3 = 5

e. 24 ÷ ___ = 6

f. 23.1 ÷ ___ = 4.2

2. **Lemonade Recipe.** A recipe uses 3 lemons for every 2 cups of syrup. Complete the table, then find the syrup for 18 lemons.

Hint *Count by 3s on the top row and by 2s on the bottom row.*

Lemons	3	6	9	12
Syrup (cups)	2			

Answer_____ cups for 18

3. **Pancake Batter.** Pancakes need 4 cups of mix for every 3 cups of milk. Complete the ratio table.

Hint *Find what 4 was multiplied by, then use it on the 3.*

Mix (cups)	4	8		20
Milk (cups)	3		9	

4. Class Supplies. A class gets 18 notebooks for every 6 students. Scale down to complete the table.

Hint *Divide both rows by the same number each time.*

Notebooks	18	9		3
Students	6		2	

5. Sugar to Flour. A recipe uses 15 cups of flour for every 7 cups of sugar. How much sugar goes with 45 cups of flour?

Hint *45 ÷ 15 gives the scale factor.*

Show your work.

Answer_____ cups

6. Pencils to Pens. A store sells pencils to pens in a ratio of 4.5 to 9. How many pens go with 27 pencils?

Show your work.

Answer_____ pens

7. Bike Ride. A cyclist rides 13.5 miles every 1.5 hours. How far does she ride in 4.5 hours?

Hint *1.5 hours × 3 = 4.5 hours.*

Show your work.

Answer_____ miles

8. Ribbons to Bows. A craft kit uses 2.5 yards of ribbon for every 6 bows.

a. Write two equivalent ratios that use only whole numbers. _____

b. Is 4.5 : 8 equivalent to 2.5 : 6? Explain. _____

Show your work.

FIND THE ERROR

explain the mistake, then fix it

9. Deshawn's Work. Deshawn says 4 : 6 and 6 : 8 are equivalent because he added 2 to each number. Explain his mistake. Then write a ratio that really is equivalent to 4 : 6.

_____

_____

_____

TEST PRACTICE

choose the best answer

10. Which ratio is equivalent to 2 : 5?

A 4 : 7 **B** 8 : 20 **C** 5 : 2 **D** 6 : 16

11. To keep a ratio the same in a ratio table, you –

A change only the top row

B add the same number to both rows

C multiply both rows by the same number

D change only the bottom row

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

57.6 Q	12 C	6.4 F	40.5 R	17 X	21 T	54 O	37 Z	5.5 A

#1b	#1f	#2	#5	#6	#7

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