Name_____ Date_____ Period_____

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

Understanding Ratios

Learning target – I can describe a relationship between two quantities using ratio language. · 6.RP.A.1

REMEMBER

- A **ratio** compares two amounts: 3 to 5, 3 : 5, or 3/5. **Order matters.**
- **Part-to-part** compares two groups. **Part-to-whole** adds the groups to find the total.
- **Simplest form:** divide both terms by the same number.

WORKED EXAMPLE

A shelf has 6 math books and 9 reading books. Write reading to math, then math to all books.

Step 1 Reading first: 9 : 6.

Step 2 All books: 6 + 9 = 15, so math to all is 6 : 15.

Step 3 Divide both terms by 3: 6 : 15 = 2 : 5.

Answer **9 : 6 and 2 : 5**

WORDS **ratio** *(razón)* · **term** *(término)* · **part-to-part** *(parte a parte)* · **part-to-whole** *(parte al todo)*

PRACTICE

show your work · label units

1. **Fruit Basket.** A basket holds 6 green apples, 10 oranges and 4 bananas. Write each ratio in simplest form.

a. apples to oranges: ____

b. bananas to all fruit: ____

c. oranges to apples: ____

d. apples to all fruit: ____

2. **Art Brushes.** An art bin has 6 wide brushes and 15 detail brushes.

Hint *For the whole, add both kinds of brushes first.*

a. Detail to wide, three ways. Then simplify: _____

b. Wide to all brushes, simplest form: _____

3. **Track Team.** The team has 14 sprinters and 6 distance runners. Write sprinters to distance runners in simplest form.

Show your work.

Ratio_____

4. **Garden Harvest.** A garden has 21 tomatoes and 28 peppers. A helper says tomatoes to peppers is 4 to 3. Is the helper correct?

Hint *Write 21 : 28, then simplify.*

Show your work.

Yes or no_____

5. Library Books. In a stack of 35 books, 15 are comic books and the rest are mystery books. Write mystery to all books as a fraction in simplest form.

Hint *Subtract to find the mystery books first.*

Show your work.

Fraction_____

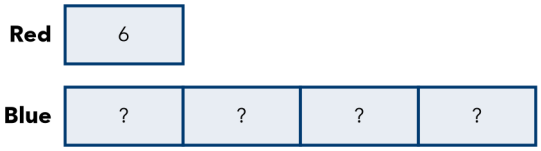
6. Band Sections. A band has 10 flutes, 6 trumpets and 4 drums.

Hint *For drums to all, add all three sections.*

a. Trumpets to flutes: _____

b. Drums to all band members: _____

7. Marble Bag. A bag holds 6 red marbles. The ratio of red to blue is 1 : 4.



a. How many blue marbles? _____

b. Red to all marbles, simplest form: _____

8. Class Election. In a class of 30 students, 12 voted for Ana and the rest for Ben.

a. Ana to Ben, simplest form: _____

b. Ben to all votes, simplest form: _____

c. Four new students vote for Ana. Is Ana to Ben now 1 : 1? Explain. _____

Show your work.

FIND THE ERROR

explain the mistake, then fix it

9. Maya's Work. A pet store has 4 rabbits and 7 guinea pigs. Maya wrote: "The ratio of guinea pigs to rabbits is 4 to 7." Explain her mistake and write the correct ratio.

_____

_____

TEST PRACTICE

choose the best answer

10. A box has 8 pens and 12 pencils. The ratio of pens to pencils in simplest form is –

A 3 : 2 **B** 8 : 20 **C** 4 : 5 **D** 2 : 3

11. A team has 9 girls and 4 boys. The ratio of boys to all the players is –

A 4 : 9 **B** 9 : 4 **C** 4 : 13 **D** 13 : 4

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

4/7 P	2 : 7 I	3 : 5 S	7 : 3 M	7 : 2 Z	1 : 5 L	24 E	30 X	3 : 7 Q

#1a	#2b	#3	#5	#6b	#7a

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