Name_____ Date_____ Period_____

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

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 4 green apples, 6 oranges and 2 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 8 wide brushes and 12 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 15 sprinters and 10 distance runners. Write sprinters to distance runners in simplest form.

Show your work.

Ratio_____

4. **Garden Harvest.** A garden has 18 tomatoes and 24 peppers. A helper says peppers to tomatoes is 4 to 3. Is the helper correct?

Hint *Write 24 : 18, then simplify.*

Show your work.

Yes or no_____

5. Library Books. In a stack of 30 books, 12 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_____

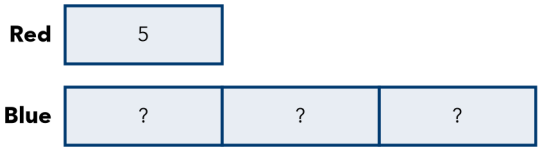
6. Band Sections. A band has 14 flutes, 8 trumpets and 6 drums.

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 5 red marbles. The ratio of red to blue is 1 : 3.



a. How many blue marbles? _____

b. Red to all marbles, simplest form: _____

8. Class Election. In a class of 28 students, 12 voted for Ana and the rest for Ben.

a. Ana to Ben, simplest form: _____

b. Ben to all votes, simplest form: _____

c. Two 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. Devon's Work. A shelter has 5 cats and 8 dogs. Devon wrote: "The ratio of dogs to cats is 5 to 8." Explain his mistake and write the correct ratio.

_____

_____

TEST PRACTICE

choose the best answer

10. A box has 6 pens and 9 pencils. The ratio of pens to pencils in simplest form is –

A 3 : 2 **B** 2 : 3 **C** 6 : 15 **D** 9 : 6

11. A team has 7 girls and 5 boys. The ratio of boys to all the players is –

A 5 : 7 **B** 5 : 12 **C** 7 : 12 **D** 12 : 5

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

20 X	5 : 2 Q	15 S	2 : 3 R	3/5 I	3 : 11 Z	3 : 2 T	2 : 5 A	3 : 14 O

#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 #___