Ratio Worksheet

Grade 6 · Common Core 6.RP.A.1

> Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities.

Practice

Builds the skill step by step.

1. A fruit bowl has 4 apples and 7 bananas. Write the ratio of apples to bananas.

2. The same fruit bowl has 4 apples and 7 bananas. Write the ratio of bananas to apples.

3. A class has 12 girls and 15 boys. Which shows the ratio of boys to girls?

   A. 12 : 15

   B. 12 : 27

   C. 15 : 12

   D. 15 : 27

4. A box holds 5 red markers and 3 blue markers. Write the ratio of red markers to all the markers in the box.

5. The table shows the pets owned by students in a club. Write the ratio of cats to dogs using the numbers in the table.

Pet	Number
Dogs	9
Cats	6
Fish	2

6. The ratio 3 to 10 can be written in other ways. Write it with a colon and as a fraction.

7. A recipe uses 2 cups of flour for every 1 cup of sugar. Which statement describes this ratio?

   A. For every 2 cups of flour, there is 1 cup of sugar.

   B. For every 2 cups of sugar, there is 1 cup of flour.

   C. For every 1 cup of flour, there are 2 cups of sugar.

   D. There are 3 cups of flour for every cup of sugar.

8. A parking lot has 8 cars and 5 trucks. What is the ratio of trucks to the total number of vehicles?

9. A soccer team won 9 games and lost 4 games. What is the ratio of losses to wins?

   A. 4 : 9

   B. 9 : 4

   C. 4 : 13

   D. 9 : 13

10. A shelf holds 6 math books and 11 science books. Write the ratio of math books to science books as a fraction.

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On Level

Grade-level practice.

1. At a school concert, 45 students sang and 30 students played instruments. Write the ratio of singers to instrument players in simplest form.

2. A juice drink is made with 3 cups of orange juice for every 5 cups of sparkling water. What is the ratio of orange juice to the total amount of drink?

3. The table shows the favorite seasons of the students in a class. Write the ratio of students who chose fall to students who did not choose fall, in simplest form.

Season	Students
Summer	14
Winter	6
Fall	10
Spring	5

4. Maya says, "For every 4 laps Jordan swims, I swim 3 laps." What is the ratio of Maya's laps to Jordan's laps?

   A. 3 : 4

   B. 4 : 3

   C. 3 : 7

   D. 4 : 7

5. A garden has 18 tomato plants and 24 pepper plants. Complete the sentence with the smallest whole numbers possible: For every ___ tomato plants, there are ___ pepper plants.

6. There are 28 students in a class. 16 of them walk to school and the rest ride the bus. Write the ratio of bus riders to walkers in simplest form.

7. Which situation has a ratio of 2 : 5?

   A. 2 dogs to 7 cats

   B. 10 pencils to 25 pens

   C. 5 hats to 2 scarves

   D. 4 shirts to 12 pants

8. A bag holds 40 marbles, and 15 of them are green. What is the ratio of green marbles to marbles that are not green, in simplest form?

9. A basketball team scored 24 points in the first half and 32 points in the second half. Write the ratio of first-half points to total points in simplest form.

10. A store sells 7 notebooks for every 2 binders. Which statement is also true?

    A. For every 2 notebooks, the store sells 7 binders.

    B. The ratio of binders to notebooks is 2 : 7.

    C. The ratio of notebooks to all items sold is 7 : 2.

    D. For every 9 binders, the store sells 7 notebooks.

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Challenge

Multi-step and word problems that stretch it.

1. The ratio of cats to dogs at an animal shelter is 3 : 5. There are 15 cats. How many dogs are at the shelter?

2. In a class, the ratio of boys to girls is 4 : 5. There are 36 students in all. How many girls are in the class?

3. Liam says the ratio of red tiles to blue tiles in a pattern is 2 : 3, so 2 out of every 3 tiles are red. Is he correct? Explain.

4. A smoothie recipe uses 2 cups of strawberries, 3 cups of yogurt and 1 cup of milk. What is the ratio of yogurt to the total amount of smoothie, in simplest form?

5. In a club, the ratio of sixth graders to seventh graders is 5 : 3. Which statement must be true?

   A. There are exactly 5 sixth graders in the club.

   B. There are 2 more sixth graders than seventh graders.

   C. $\frac{3}{5}$ of the club members are seventh graders.

   D. $\frac{5}{8}$ of the club members are sixth graders.

6. Box A has 6 red pens and 9 black pens. Box B has 8 red pens and 12 black pens. Do the boxes have the same ratio of red pens to black pens? Explain.

7. A trail mix uses 5 cups of peanuts for every 2 cups of raisins. Jada makes a batch with 14 cups of raisins. How many cups of peanuts does she use?

8. At a baseball game, the ratio of home fans to visiting fans is 7 : 2. There are 450 fans in all. How many more home fans than visiting fans are there?

9. A paint color mixes blue paint and yellow paint in a ratio of 3 : 4. Sam used 12 cups of yellow paint. How many cups of paint are in the mix altogether?

10. A team won 12 games and lost 8. Priya was asked for the ratio of wins to games played, and she wrote 12 : 8. What mistake did she make, and what is the correct ratio in simplest form?