Class 5 Ratio Worksheet by Thinking Juggernaut

Name: _____ Date: _____ **Total Marks:** 24

🎯 What is Ratio?

A ratio compares two or more quantities of the same kind.

For example: If there are 3 apples and 5 oranges, the ratio of apples to oranges is **3:5** (read as "3 is to 5")

- **Order matters:** Ratio 3:5 is different from 5:3
- **Same units:** We can only compare quantities with the same units (apples to apples, not apples to oranges' weight!)
- **Simplest form:** Like fractions, ratios can be simplified (4:8 = 1:2)
- **Three ways to write:** 3:5 or 3 to 5 or 3/5

Real-life Examples:

- Classroom: 15 boys to 18 girls (ratio 15:18 = 5:6)
- Colors: Mixing 1 part blue to 2 parts yellow makes green (ratio 1:2)

📝 Sample Problem

Problem: In Rahul's fruit basket, there are 6 mangoes and 9 bananas. Find the ratio of mangoes to bananas and simplify it.

Mangoes (6)   **Bananas (9)**

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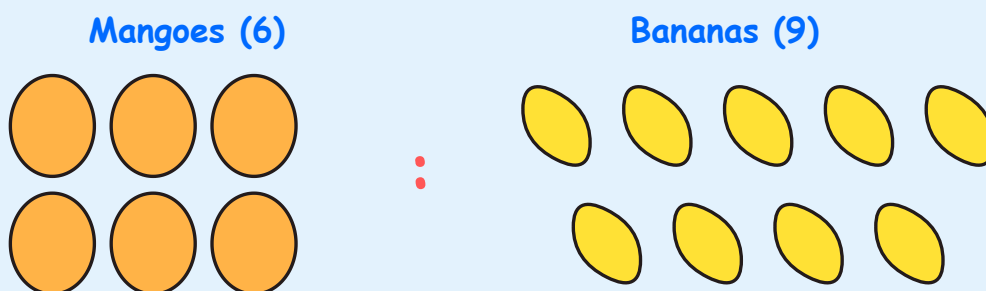
Ratio = 6:9

Solution:

Number of mangoes = 6

Number of bananas = 9

Ratio of mangoes to bananas = 6:9

Simplifying:

Both 6 and 9 are divisible by 3

6 ÷ 3 = 2

9 ÷ 3 = 3

Answer: The ratio in simplest form is 2:3 🥭🍌

Part A: Warm-up Questions

⭐ **Easy Level**

1. Write the ratio of stars to hearts.

⭐⭐⭐⭐   ❤️❤️

Answer: _____

2. Fill in the blank: The ratio 5:3 is read as "_____ to _____".

3. True or False: The ratio 2:5 is the same as 5:2.

○ True   ○ False

4. In a box, there are 7 red balls and 8 blue balls. What is the ratio of red balls to blue balls?

Answer: _____

5. Simplify the ratio: 10:15 = _____

6. A packet has 3 pencils and 6 pens. Write the ratio of pencils to pens.

Answer: _____

7. Which ratio is larger? Circle the correct answer.
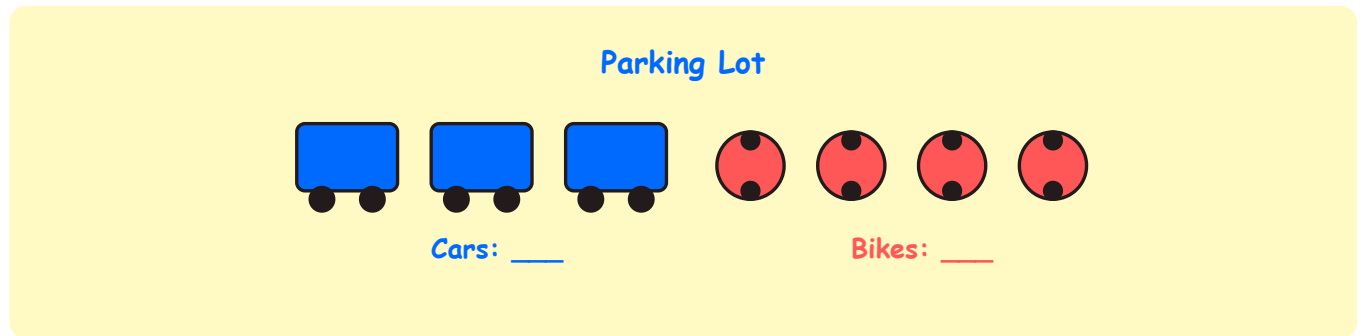
3:2   OR   2:3

(Hint: Compare the first number to the second number)

8. Complete: If the ratio of chapatis to rotis is 4:3, then for every 4 chapatis there are _____ rotis.

Part B: Practice Questions

⭐⭐ **Medium Level**

9. Look at the parking lot. What is the ratio of cars to bikes?

Parking Lot

Cars: ____   Bikes: ____

Ratio: _____

10. A cricket team has 11 players. 6 are batsmen and 5 are bowlers. Find the ratio of batsmen to bowlers.

11. Match Column A with Column B:

Column A	Column B
a) 6:8 simplified	i) 1:2
b) 4:8 simplified	ii) 3:4
c) 9:12 simplified	iii) 2:3
d) 8:12 simplified	iv) 3:5

Write your answers: a-____, b-____, c-____, d-____

12. In Priya's garden, there are 15 rose plants and 20 tulip plants. What is the ratio of roses to tulips in simplest form?

13. A recipe uses milk and water in the ratio 3:2. If you use 6 cups of milk, how many cups of water do you need?

14. Look at the ribbon pattern. What is the ratio of green squares to yellow squares?

Ratio: _____

15. True or False: The ratio 4:5 means there are 4 parts out of 9 total parts.

○ True   ○ False

16. In a school library, there are 48 Hindi books and 36 English books. Find the ratio of Hindi books to English books in simplest form.

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17. Arrange these ratios in ascending order: 2:3, 1:3, 2:5

_____ < _____ < _____

(Hint: Convert to fractions or find common denominators)

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18. A bag contains red and blue marbles in the ratio 5:7. If there are 25 red marbles, how many blue marbles are there?

Part C: Challenge Questions

⭐⭐⭐ **Hard Level**

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19. A sweet shop sells samosas and kachoris in the ratio 4:3. If they sold 28 samosas in one hour, how many kachoris did they sell?

Ratio 4:3

Samosas   Kachoris

4 parts = 28   :   3 parts = ?

1 part = _____
Kachoris sold = _____

20. The ratio of Amit's age to his sister's age is 3:2. If Amit is 15 years old, how old is his sister?

21. A fruit seller has apples and oranges in the ratio 5:4. If he has a total of 72 fruits, how many apples and how many oranges does he have?
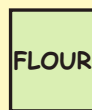
Total parts = _____
Value of 1 part = _____
Apples = _____
Oranges = _____

22. A recipe for making ladoos requires flour and sugar in the ratio 7:3. If you use 21 cups of flour, how much sugar do you need? Also find the total quantity of mixture.
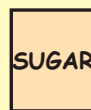
Recipe - Ratio 7:3

| FLOUR | = | **21 cups** | SUGAR | = | **? cup** |

7 parts   3 parts

Sugar needed = _____
Total mixture = _____

23. In a class test, the ratio of students who passed to those who failed is 8:2. If 40 students took the test, how many passed and how many failed?

Students passed = _____

Students failed = _____

24. A gardener plants roses and jasmine in the ratio 3:5. If he plants 15 roses, how many jasmine plants does he plant? What is the total number of plants?

Jasmine plants = _____

Total plants = _____

🔑 Answer Key

Part A: Warm-up Questions

1. 4:2 or 2:1 (4 stars to 2 hearts, simplified is 2:1)

2. Five to Three

3. False (Order matters in ratios! 2:5 ≠ 5:2)

4. 7:8

5. 2:3 (divide both by 5)

6. 3:6 or 1:2 (simplified)

7. 3:2 is larger (3/2 = 1.5, while 2/3 = 0.67)

8. 3 rotis

Part B: Practice Questions

9. 3:4 (3 cars to 4 bikes)

10. 6:5

11. a-ii (3:4), b-i (1:2), c-ii (3:4), d-iii (2:3)

12. 3:4 (15:20 = 3:4, divide both by 5)

13. 4 cups (If ratio is 3:2 and milk is 6, then 6÷3=2, so water = 2×2 = 4)

14. 5:5 or 1:1 (5 green, 5 yellow)

15. True (4+5 = 9 total parts)

16. 4:3 (48:36 = 4:3, divide both by 12)

17. 1:3 < 2:5 < 2:3 (Converting: 1/3 = 0.33, 2/5 = 0.4, 2/3 = 0.67)

18. 35 blue marbles (5:7 means if red = 25, then 1 part = 5, so blue = 7×5 = 35)

Part C: Challenge Questions

19. 1 part = 7 (28÷4), Kachoris = 21 (7×3)

20. 10 years old (3:2 ratio, Amit is 15, so 1 part = 5, sister = 2×5 = 10)

21. Total parts = 9, Value of 1 part = 8 (72÷9), Apples = 40 (5×8), Oranges = 32 (4×8)

22. Sugar needed = 9 cups (7:3, flour 21, so 1 part = 3, sugar = 3×3 = 9), Total = 30 cups

23. Passed = 32 (8:2 = 4:1 simplified, total parts = 5, 1 part = 8, passed = 4×8), Failed = 8 (1×8)

24. Jasmine = 25 (3:5, roses 15, so 1 part = 5, jasmine = 5×5 = 25), Total = 40

📊 Scoring Guide

Total Questions: 24 | Total Marks: 24

Score Range	Performance Level	What to Do Next
20-24	⭐⭐⭐ Excellent!	You're a ratio master! Try solving problems with three-term ratios (like 2:3:5).
15-19	⭐⭐ Very Good!	Great work! Practice more word problems that require finding unknown quantities.
10-14	⭐ Good Effort!	Keep practicing! Focus on simplifying ratios and understanding the relationship between parts.
0-9	Keep Trying!	Review the concept section. Practice finding ratios from pictures and simplifying them daily.

📝 Tips for Improvement:

- **Always simplify:** Divide both parts by their HCF (like 10:15 becomes 2:3)
- **Order matters:** Remember 3:5 is different from 5:3
- **Find the value of 1 part:** In word problems, divide the given quantity by its ratio part
- **Check total parts:** When given total, add ratio parts (3:5 means 8 total parts)
- **Use multiplication:** Once you know 1 part, multiply to find other quantities
- **Practice with real objects:** Use marbles, candies, or toys to visualize ratios

🎯 Common Mistakes to Avoid:

- ❌ Forgetting to simplify the final answer
- ❌ Mixing up the order (writing 5:3 instead of 3:5)
- ❌ Not finding the value of 1 part in word problems
- ❌ Adding ratios incorrectly (2:3 + 1:2 ≠ 3:5)

✨ **Great Job Completing This Worksheet!** ✨

Keep practicing ratios and you'll master them in no time!

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