

Ratio Matchup

Compare quantities in the correct order.

GRADE 6 • 6.NR.4.1

6.NR.4.1 "Explain the concept of a ratio, represent ratios, and use ratio language to describe a relationship between two quantities."

NAME _____

DATE _____

COMPARE IN ORDER

A ratio compares two quantities by division. Keep the quantities in order, because red to blue is not the same as blue to red. You can write a ratio as $a:b$, a to b , or a/b .

WORKED EXAMPLE

A craft bin has 9 green ribbons and 15 orange ribbons. Write the ratio of green ribbons to orange ribbons in simplest form.

1. Start with green to orange: $9:15$.
2. Divide both parts by 3: $9 \div 3 : 15 \div 3$.
3. Write the simplest ratio: $3:5$.

Answer: 3:5, or 3 green ribbons to 5 orange ribbons

PRACTICE 6 problems

- 1** A supply table has 14 glue sticks and 7 pairs of scissors. Write the ratio of glue sticks to pairs of scissors in simplest $a:b$ form.

ANSWER _____

- 2** A ratio of drums to keyboards is $4:11$. Describe this ratio using words.

ANSWER _____

- 3** A game shelf has 10 puzzle games and 40 card games. Write the ratio of puzzle games to card games in simplest form.

ANSWER _____

- 4** A bracelet has 13 purple beads and 17 silver beads. Write the ratio of purple beads to silver beads as a fraction.

ANSWER _____

- 5** A bike rack holds 28 mountain bikes and 49 road bikes. Write the ratio of mountain bikes to road bikes in simplest form.

ANSWER _____

- 6** A key chain uses a ratio of 6 star charms to 19 letter charms. Complete the sentence:
For every ____ star charms, there are ____ letter charms.

ANSWER _____

APPLY IT Show your work

- 1** At an esports club meeting, 35 students play strategy games and 20 students play sports games. Write the ratio of strategy-game players to sports-game players in simplest form. Then describe the ratio using words.

WORK SPACE

ANSWER _____

- 2** For a travel survey, 44 students chose the bus and 11 students chose a bike as their usual ride to school. Write the ratio of bus riders to bike riders in simplest form. Then describe the ratio using words.

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

A school garden has green plants and black plants in a ratio of 7:11. There are 44 black plants. How many green plants are there? Then write the ratio of green plants to all plants in simplest form. Explain how you know.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	A supply table has 14 glue sticks and 7 pairs of scissors. Write the ratio of glue sticks to pairs of scissors in simplest a:b form.	2:1
2	A ratio of drums to keyboards is 4:11. Describe this ratio using words.	For every 4 drums, there are 11 keyboards.
3	A game shelf has 10 puzzle games and 40 card games. Write the ratio of puzzle games to card games in simplest form.	1:4
4	A bracelet has 13 purple beads and 17 silver beads. Write the ratio of purple beads to silver beads as a fraction.	13/17
5	A bike rack holds 28 mountain bikes and 49 road bikes. Write the ratio of mountain bikes to road bikes in simplest form.	4:7
6	A key chain uses a ratio of 6 star charms to 19 letter charms. Complete the sentence: For every ____ star charms, there are ____ letter charms.	For every 6 star charms, there are 19 letter charms.

PART 2 • APPLY IT

- 7:4; For every 7 strategy-game players, there are 4 sports-game players.** Divide 35 and 20 by 5 to get 7:4. The ratio statement must list strategy-game players first.
- 4:1; For every 4 bus riders, there is 1 bike rider.** Divide 44 and 11 by 11 to get 4:1. The phrase must compare bus riders to bike riders in that order.

CHALLENGE

There are 28 green plants. The ratio of green plants to all plants is 7:18 because 44 is 4 groups of 11, so there are 4 groups of 7, or 28, green plants. There are $28 + 44 = 72$ plants total, and $28:72$ simplifies to 7:18.

Accept equivalent ratios when a problem does not require simplest form, as long as the quantities stay in the stated order. For ratio-language responses, accept clear wording that correctly states the two quantities and their order.