

Ratio Switch

Write comparisons three ways.

GRADE 6 • 6.PFA.1.b

6.PFA.1.b "Represent a relationship in context that makes a comparison by using the notations $a:b$, a to b , and a to b ."

NAME _____

DATE _____

ONE COMPARISON, THREE FORMS

A ratio compares two quantities in a specific order. To compare a to b , write a/b , $a:b$, or a to b . Keep the first quantity first in every form.

WORKED EXAMPLE

A library display has 7 mystery books and 9 science books.
Compare mystery books to science books in all three forms.

1. Start with mystery books, 7.
2. Put science books second, 9.
3. Write the comparison as $7/9$, $7:9$, and 7 to 9.

Answer: $7/9$, $7:9$, and 7 to 9

PRACTICE 6 problems

- 1** A bin has 4 green markers and 11 purple markers. Compare green markers to purple markers in all three forms.

ANSWER _____

- 2** Write $6:13$ using fraction form and words.

ANSWER _____

- 3** Write 8 to 3 using fraction form and colon form.

ANSWER _____

- 4** A pet shelter has 5 rabbits and 12 hamsters. Compare rabbits to hamsters in all three forms.

ANSWER _____

- 5** Write $14/2$ using colon form and words.

ANSWER _____

- 6** A club has 16 boys and 10 girls. Compare girls to boys in all three forms.

ANSWER _____

APPLY IT Show your work

- 1** Maya's playlist has 18 pop songs and 30 hip-hop songs. Write the ratio of pop songs to hip-hop songs in all three forms. Then write the ratio in simplest colon form.

WORK SPACE

ANSWER _____

- 2** During a game tournament, a team earns 12 points in round one and 20 points in round two. Write the ratio of round-one points to round-two points in all three forms. Then write the ratio in simplest fraction form.

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

A school garden has 24 tomato plants, 18 pepper plants, and 30 herb plants. Compare pepper plants to all non-pepper plants in all three forms, using the simplest ratio.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	A bin has 4 green markers and 11 purple markers. Compare green markers to purple markers in all three forms.	4/11, 4:11, and 4 to 11
2	Write 6:13 using fraction form and words.	6/13 and 6 to 13
3	Write 8 to 3 using fraction form and colon form.	8/3 and 8:3
4	A pet shelter has 5 rabbits and 12 hamsters. Compare rabbits to hamsters in all three forms.	5/12, 5:12, and 5 to 12
5	Write 14/2 using colon form and words.	14:2 and 14 to 2
6	A club has 16 boys and 10 girls. Compare girls to boys in all three forms.	10/16, 10:16, and 10 to 16

PART 2 • APPLY IT

- 1. 18/30, 18:30, and 18 to 30; simplest colon form: 3:5** Put pop songs first and hip-hop songs second. Divide both parts of 18:30 by 6 to get 3:5.
- 2. 12/20, 12:20, and 12 to 20; simplest fraction form: 3/5** Put round-one points first and round-two points second. Divide 12 and 20 by 4 to get 3/5.

CHALLENGE

1/3, 1:3, and 1 to 3

Accept equivalent ratio forms when the order matches the quantities named in the question. For the challenge, non-pepper plants total 54, so 18:54 simplifies to 1:3.