LESSON MAKER PRO

Ratio Remix

Put quantities in order and describe their relationship.

GRADE 6 · 6.PR.A.1

6.PR.A.1 "Use appropriate notations [a/b, a to b, a:b] to represent a proportional relationship between quantities and use ratio language to describe the relationship between quantities."

NAME _____ DATE _____

ORDER MATTERS

A ratio compares two quantities, and the order you name them matters. If the first quantity is a and the second is b, write a/b, a to b, or a:b. In words, say how many of the first quantity there are for every amount of the second.

WORKED EXAMPLE

A prize box has 7 stickers and 11 bookmarks. Write the ratio of stickers to bookmarks in three ways and describe it in words.

1. Put the counts in the order named: 7 stickers, then 11 bookmarks.
2. Write the ratio three ways: 7/11, 7 to 11, and 7:11.
3. Describe it: 7 stickers for every 11 bookmarks.

Answer: 7/11, 7 to 11, 7:11; 7 stickers for every 11 bookmarks.

PRACTICE 6 problems

1 A bag has 4 blue tokens and 9 red tokens. Write the ratio of blue tokens to red tokens using a colon.

ANSWER _____

2 An animal shelter has 5 cats and 8 dogs. Write the ratio of dogs to cats as a fraction.

ANSWER _____

3 An equipment rack holds 12 soccer balls and 3 basketballs. Describe the ratio of soccer balls to basketballs using the words 'for every.'

ANSWER _____

4 The ratio of songs to podcasts on a playlist is 2:6. Write this ratio using 'to' and as a fraction.

ANSWER _____

5 A supply box has 10 green markers and 15 purple markers. Write the ratio of purple markers to green markers using a colon.

ANSWER _____

6 A shelf holds 18 graphic novels and 6 mystery novels. Write the ratio of mystery novels to graphic novels as a fraction and describe it using 'for every.'

ANSWER _____

APPLY IT Show your work

1 In a video game, 24 players choose a dragon avatar and 18 choose a robot avatar. Write the ratio of dragon avatars to robot avatars using a colon, then describe it using 'for every.'

WORK SPACE

ANSWER _____

2 A playlist has 10 pop songs and 25 hip-hop songs. Write the ratio of pop songs to all songs as a fraction, then describe it using 'for every.'

WORK SPACE

ANSWER _____

CHALLENGE One step up

One game club has 9 console games and 12 board games. Another has 18 console games and 24 board games. Do the clubs have the same ratio of console games to board games? Write each ratio as a fraction and explain how you know.

WORK SPACE AND ANSWER

ANSWER KEY

Ratio Remix

GRADE 6 · 6.PR.A.1

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	A bag has 4 blue tokens and 9 red tokens. Write the ratio of blue tokens to red tokens using a colon.	**4:9**
2	An animal shelter has 5 cats and 8 dogs. Write the ratio of dogs to cats as a fraction.	**8/5**
3	An equipment rack holds 12 soccer balls and 3 basketballs. Describe the ratio of soccer balls to basketballs using the words 'for every.'	**12 soccer balls for every 3 basketballs.**
4	The ratio of songs to podcasts on a playlist is 2:6. Write this ratio using 'to' and as a fraction.	**2 to 6; 2/6**
5	A supply box has 10 green markers and 15 purple markers. Write the ratio of purple markers to green markers using a colon.	**15:10**
6	A shelf holds 18 graphic novels and 6 mystery novels. Write the ratio of mystery novels to graphic novels as a fraction and describe it using 'for every.'	**6/18; 6 mystery novels for every 18 graphic novels.**

PART 2 · APPLY IT

1. **24:18; 24 dragon avatars for every 18 robot avatars.** Put dragon avatars first because they are named first. Use 24, then 18, in both forms.
2. **10/35; 10 pop songs for every 35 songs on the playlist.** There are 10 + 25 = 35 songs in all. Compare the 10 pop songs with all 35 songs.

CHALLENGE

Yes. The ratios are 9/12 and 18/24. Multiplying both parts of 9/12 by 2 gives 18/24, so the ratios are the same.

Accept equivalent ratios when the order of the quantities is correct. For descriptions in words, the named quantities must match the numbers.