LESSON MAKER PRO

Compare It Two Ways

Use ratios and differences to compare quantities.

GRADE 6 · 6.N.3.1

6.N.3.1 "Identify and use ratios to compare and relate quantities in multiple ways. Recognize that multiplicative comparison and additive comparison are different."

NAME _____ DATE _____

THE BIG IDEA

A ratio compares quantities by division. Write the quantities in the order asked, then divide both parts by the same number to simplify. Subtraction tells how many more, while a ratio tells how many times as many.

WORKED EXAMPLE

A box has 9 red tiles and 27 blue tiles. Write the ratio of red tiles to blue tiles in simplest form. How many more blue tiles are there?

1. Write the ratio in the order asked: 9:27.
2. Divide both parts by 9: 9:27 = 1:3.
3. Subtract to find how many more: 27 - 9 = 18.

Answer: The ratio is 1:3, and there are 18 more blue tiles.

PRACTICE 6 problems

1 A table has 12 green bracelets and 20 yellow bracelets. Write the ratio of green bracelets to yellow bracelets in simplest form.

ANSWER _____

2 A club has 15 art members and 25 coding members. Write the ratio of coding members to art members in simplest form.

ANSWER _____

3 A trail mix has 10 raisins for every 40 peanuts. Write the ratio of raisins to peanuts as a fraction in simplest form.

ANSWER _____

4 A bakery made 6 mini cupcakes and 30 regular cupcakes. How many times as many regular cupcakes as mini cupcakes did it make?

ANSWER _____

5 A photo gallery has 14 pet photos and 35 nature photos. How many more nature photos than pet photos are there?

ANSWER _____

6 The ratio of red beads to blue beads is 4:5. There are 32 red beads. How many blue beads are there?

ANSWER _____

APPLY IT Show your work

1 For every 5 game tokens Mia earns, Luis earns 6. Mia earns 30 tokens. How many tokens does Luis earn? How many more tokens is that than Mia earns?

WORK SPACE

ANSWER _____

2 A student-made video got 25 likes on Monday and 100 likes on Tuesday. How many times as many likes did it get on Tuesday? How many more likes did it get on Tuesday?

WORK SPACE

ANSWER _____

CHALLENGE One step up

A playlist has pop songs and rock songs in a ratio of 2:5. It has 12 more rock songs than pop songs. How many songs of each type are on the playlist? In one or two sentences, explain how you found both amounts.

WORK SPACE AND ANSWER

ANSWER KEY

Compare It Two Ways

GRADE 6 · 6.N.3.1

PART 1 · PRACTICE

#	PROBLEM	ANSWER
1	A table has 12 green bracelets and 20 yellow bracelets. Write the ratio of green bracelets to yellow bracelets in simplest form.	**3:5**
2	A club has 15 art members and 25 coding members. Write the ratio of coding members to art members in simplest form.	**5:3**
3	A trail mix has 10 raisins for every 40 peanuts. Write the ratio of raisins to peanuts as a fraction in simplest form.	**1/4**
4	A bakery made 6 mini cupcakes and 30 regular cupcakes. How many times as many regular cupcakes as mini cupcakes did it make?	**5 times as many**
5	A photo gallery has 14 pet photos and 35 nature photos. How many more nature photos than pet photos are there?	**21 photos**
6	The ratio of red beads to blue beads is 4:5. There are 32 red beads. How many blue beads are there?	**40 blue beads**

PART 2 · APPLY IT

1. **Luis earns 36 tokens, which is 6 more than Mia earns.** Mia's 5 parts become 30 tokens by multiplying by 6, so Luis earns 6 × 6 = 36 tokens. Then 36 - 30 = 6.
2. **4 times as many likes and 75 more likes** Divide 100 by 25 to get 4 times as many. Subtract 25 from 100 to get 75 more.

CHALLENGE

The difference of 3 parts equals 12 songs, so each part equals 4 songs. There are 8 pop songs and 20 rock songs.

Keep ratio order as stated in each question. For the challenge, accept any one- or two-sentence explanation that uses the 12-song difference to find 8 pop songs and 20 rock songs.