

Ratio Power Moves

Use equivalent ratios to find missing amounts.

GRADE 6 • 6.RP.A

CCSS.Math.Content.6.RP.A "Understand ratio concepts and use ratio reasoning to solve problems."

NAME _____

DATE _____

SCALE BOTH PARTS

A ratio compares two quantities in a specific order. To make an equivalent ratio, multiply or divide both parts by the same nonzero number. Use the scale factor from one part to find the matching part.

WORKED EXAMPLE

A mural has 7 blue tiles for every 11 green tiles. If the mural has 35 blue tiles, how many green tiles does it have?

1. Start with the ratio 7:11.
2. Find the scale factor: $35 / 7 = 5$.
3. Multiply the green-tile part: $11 \times 5 = 55$.

Answer: 55 green tiles

PRACTICE 6 problems

- 1** Complete the equivalent ratio: $6:9 = 18:x$

ANSWER _____

- 2** Write 12 pencils to 8 pens as a simplified ratio of pencils to pens.

ANSWER _____

- 3** Complete the equivalent ratio: $x:14 = 16:28$

ANSWER _____

- 4** A smoothie uses 18 strawberries and 12 banana slices. Write the simplified ratio of strawberries to banana slices.

ANSWER _____

- 5** Eight digital stickers cost \$24. At the same rate, how much do 16 digital stickers cost?

ANSWER _____

- 6** Which ratio is equivalent to 10:15? A. 2:3 B. 4:3 C. 6:8

ANSWER _____

APPLY IT Show your work

- 1** At an esports club, the ratio of strategy-game members to sports-game members is 6:9. If 24 strategy-game members attend, how many sports-game members attend?

WORK SPACE

ANSWER _____

- 2** A game designer uses 12 gold coins for every 8 silver coins in a level. If a level has 42 gold coins, how many silver coins should it have?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

At a book club vote, the ratio of fantasy-book votes to realistic-fiction votes is 8:9. There are 85 votes altogether. How many votes did each type of book receive?

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Complete the equivalent ratio: $6:9 = 18:x$	$x = 27$
2	Write 12 pencils to 8 pens as a simplified ratio of pencils to pens.	3:2
3	Complete the equivalent ratio: $x:14 = 16:28$	$x = 8$
4	A smoothie uses 18 strawberries and 12 banana slices. Write the simplified ratio of strawberries to banana slices.	3:2
5	Eight digital stickers cost \$24. At the same rate, how much do 16 digital stickers cost?	\$48
6	Which ratio is equivalent to 10:15? A. 2:3 B. 4:3 C. 6:8	A. 2:3

PART 2 • APPLY IT

- 36 sports-game members** Since $24 / 6 = 4$, multiply 9 by 4. There are 36 sports-game members.
- 28 silver coins** Simplify 12:8 to 3:2. Since $42 / 3 = 14$, multiply 2 by 14 to get 28.

CHALLENGE

40 fantasy-book votes and 45 realistic-fiction votes

Accept ratio notation with a colon or the word “to” for simplified-ratio items. For the cost problem, accept \$48 or 48 dollars.