

Ratio Route

Build tables, plot pairs, and compare ratios.

GRADE 6 • 6.NR.4.2

6.NR.4.2 "Make tables of equivalent ratios relating quantities with whole-number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios."

NAME _____

DATE _____

SAME MULTIPLIER

Equivalent ratios multiply or divide both quantities by the same whole number. In an ordered pair, plot the first quantity on the x-axis and the second quantity on the y-axis.

WORKED EXAMPLE

Use the ratio 4:7 to make three pairs and plot them.

1. Start with (4,7).
2. Multiply both numbers by 2: (8,14).
3. Multiply both numbers by 3: (12,21).
4. Plot all three ordered pairs.

Answer: (4,7), (8,14), (12,21)

PRACTICE 5 problems

- 1** Complete: (2,3), (6,___), (___,15).

ANSWER _____

- 2** Plot these equivalent-ratio pairs: (5,3), (10,6), (15,9).

ANSWER _____

- 3** Table A: (1,5), (2,10). Table B: (3,5), (6,10). Which table has more first quantity for 10 second quantity?

ANSWER _____

- 4** Complete: (11,2), (33,___), (___,8).

ANSWER _____

- 5** For the ratio 1:13, make and plot pairs with first quantities 1, 2, and 3.

ANSWER _____

APPLY IT Show your work

- 1** Jay adds 5 songs to a playlist every 3 days. Make a table for 3, 6, and 9 days. Then plot (days, songs).

WORK SPACE

ANSWER _____

- 2** Team A earns 2 badges for every 6 challenges. Team B earns 3 badges for every 6 challenges. Which team earns more badges after 18 challenges?

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

Recipe A uses 3 cups of cereal for 2 cups of pretzels. Recipe B uses 5 cups of cereal for 3 cups of pretzels. Make equivalent ratios for 18 cups of pretzels. Which recipe has more cereal? Explain.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	Complete: (2,3), (6,___), (___,15).	(6,9) and (10,15)
2	Plot these equivalent-ratio pairs: (5,3), (10,6), (15,9).	Plot (5,3), (10,6), and (15,9).
3	Table A: (1,5), (2,10). Table B: (3,5), (6,10). Which table has more first quantity for 10 second quantity?	Table B, 6 compared with 2.
4	Complete: (11,2), (33,___), (___,8).	(33,6) and (44,8)
5	For the ratio 1:13, make and plot pairs with first quantities 1, 2, and 3.	(1,13), (2,26), (3,39)

PART 2 • APPLY IT

- 1. Table: (3,5), (6,10), (9,15). Plot (3,5), (6,10), and (9,15).** Multiply both parts of 3:5 by 1, 2, and 3.
- 2. Team B. Team A earns 6 badges, and Team B earns 9 badges.** Multiply each ratio by 3 to compare 18 challenges.

CHALLENGE

Recipe B. For 18 cups of pretzels, Recipe A uses 27 cups of cereal and Recipe B uses 30 cups, so Recipe B has more.

Accept equivalent ratio tables and correctly plotted ordered pairs. For comparison items, accept a correct conclusion with matching values or a valid ratio explanation.