

Ratio Table Quest

Find missing values by scaling equal ratios.

GRADE 7 • 7.CE.2.a

7.CE.2.a "Given a proportional relationship between two quantities, create and use a ratio table to determine missing values."

NAME _____

DATE _____

KEEP RATIOS EQUAL

Place matching quantities in two columns. Multiply or divide both columns by the same factor, and the pairs will stay equivalent.

WORKED EXAMPLE

7 game tokens cost 21 points. Use a ratio table to find the cost of 14 game tokens.

1. Start the table: Tokens | Points, 7 | 21.
2. Divide both entries by 7: Tokens | Points, 1 | 3.
3. Multiply both entries by 14: Tokens | Points, 14 | 42.

Answer: 42 points

PRACTICE 6 problems

- 1** A printer makes 8 flyers in 24 seconds. Make a ratio table and find x. Flyers | Seconds: 8 | 24, 16 | x.

ANSWER _____

- 2** A cyclist rides 9 laps in 27 minutes. Make a ratio table and find x. Laps | Minutes: 9 | 27, 15 | x.

ANSWER _____

- 3** 6 songs play in 18 minutes. Make a ratio table and find x. Songs | Minutes: 6 | 18, x | 30.

ANSWER _____

- 4** 12 pages take 36 minutes to read. Make a ratio table and find x. Pages | Minutes: 12 | 36, 20 | x.

ANSWER _____

- 5** 4 smoothies cost \$10. Make a ratio table and find x. Smoothies | Cost: 4 | \$10, 12 | x.

ANSWER _____

- 6** 11 packs hold 44 trading cards. Make a ratio table and find x. Packs | Cards: 11 | 44, 18 | x.

ANSWER _____

APPLY IT Show your work

- 1** A video app uses 18 GB to download 6 episodes. If each episode uses the same amount of data, how many GB will 15 episodes use? Make a ratio table.

WORK SPACE

ANSWER _____

- 2** You are ordering custom sticker sheets for a club. 8 sheets cost \$28. At the same price per sheet, what is the cost of 22 sheets? Make a ratio table.

WORK SPACE

ANSWER _____

CHALLENGE One step up

CHALLENGE

A phone plan costs \$27 for 6 GB of data. Make a ratio table that includes an intermediate row, then find the cost of 22 GB. Explain how your table reaches 22 GB.

PART 1 • PRACTICE

#	PROBLEM	ANSWER
1	A printer makes 8 flyers in 24 seconds. Make a ratio table and find x. Flyers Seconds: 8 24, 16 x.	48 seconds
2	A cyclist rides 9 laps in 27 minutes. Make a ratio table and find x. Laps Minutes: 9 27, 15 x.	45 minutes
3	6 songs play in 18 minutes. Make a ratio table and find x. Songs Minutes: 6 18, x 30.	10 songs
4	12 pages take 36 minutes to read. Make a ratio table and find x. Pages Minutes: 12 36, 20 x.	60 minutes
5	4 smoothies cost \$10. Make a ratio table and find x. Smoothies Cost: 4 \$10, 12 x.	\$30
6	11 packs hold 44 trading cards. Make a ratio table and find x. Packs Cards: 11 44, 18 x.	72 cards

PART 2 • APPLY IT

1. **45 GB** The table shows that each episode uses 3 GB. Multiply 15 by 3 to get 45 GB.
2. **\$77** Halve the original ratio, then use repeated addition in the table to build 22 sheets. The matching cost is \$77.

CHALLENGE

6 GB | \$27; 2 GB | \$9; 20 GB | \$90; 22 GB | \$99. Divide the first row by 3 to get 2 GB, multiply that row by 10 to get 20 GB, then add the 2 GB row.

Accept any correct equivalent ratio-table path, including unit-rate methods or repeated scaling. Accept money written with or without trailing zeros, such as \$30 or \$30.00.