

Grade 6 - Ratio Tables and Graphs of Ratios - Answer Key

Common Core 6.RP.A.3a · maths-pdf.fr/en/

This **ratio tables answers** for 6th Grade covers ratio tables and graphs of ratios (Common Core 6.RP.A.3a), with a free PDF to print.

Check your tables and graphs here. Each solution names the scale factor or unit rate, shows the multiplication for every missing number, and gives a final answer in bold. Several answers include the completed table or graph.

Grade 6 · Common Core State Standards: **6.RP.A.3a**

Ratio tables answers: exercises 1 to 10

Exercise 1 - Complete a ratio table

The ratio is 2:3, so the second number is $\frac{3}{2}$ times the first.

$$8 \times \frac{3}{2} = 12 \text{ and } 10 \times \frac{3}{2} = 15.$$

12 and 15

Tiles in a row	2	4	6	8	10
Tiles in a column	3	6	9	12	15

Missing numbers are 12 and 15.

Exercise 2 - Rice and water

Water is always 2 times the rice.

Rice 1, 2, 3, 7 gives water 2, 4, 6, 14.

2, 4, 6, 14 cups of water

Rice (cups)	1	2	3	7
Water (cups)	2	4	6	14

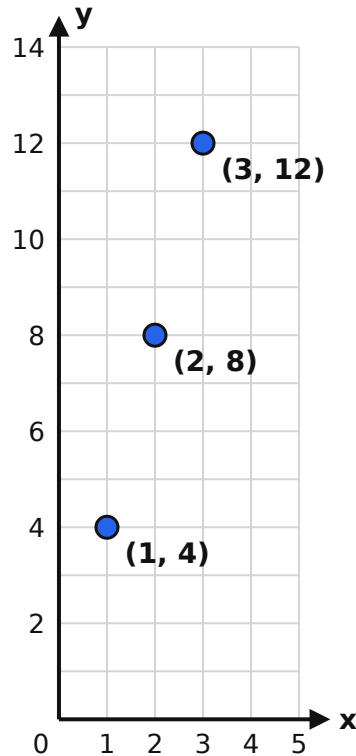
Water is twice the rice.

Exercise 3 - Read ordered pairs

The points are (1,4), (2,8), and (3,12).

Each pair gives the ratio $1:4 = 2:8 = 3:12$.

(1,4), (2,8), (3,12); **ratio** 1:4



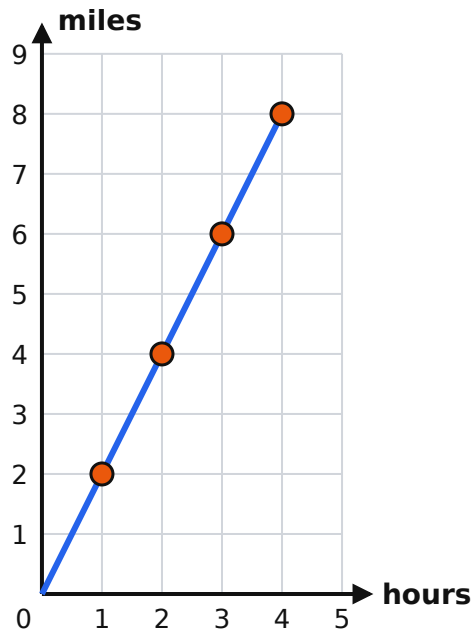
The points lie on a line through (0, 0).

Exercise 4 - Plot a ratio table

Plot (1,2), (2,4), (3,6), (4,8).

The points lie on a straight line that goes through (0,0). Every step of 1 hour adds 2 miles.

The points form a straight line through the origin.



A line through the origin.

Exercise 5 - Find missing values

$10 \div 4 = 2.5$, so each second number is 2.5 times the first.

$12 \times 2.5 = 30$ and $16 \times 2.5 = 40$.

30 and 40

Exercise 6 - Missing term in a ratio

(a) $15 \div 5 = 3$, and $8 \times 3 = 24$. The missing number is 24.

(b) $40 \div 8 = 5$, and $5 \times 5 = 25$. The missing number is 25.

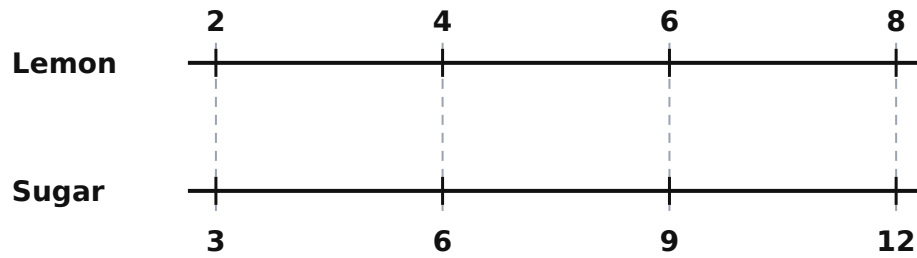
(a) 24; (b) 25

Exercise 7 - Lemon and sugar

$8 \div 2 = 4$, so multiply 3 by 4.

$3 \times 4 = 12$

12 cups of sugar



Each step adds 2 lemon and 3 sugar.

Exercise 8 - Which pair does not belong?

Multiplying 3 by 4 gives 12, so the blue number should be $5 \times 4 = 20$.

The pair (12,21) should be (12,20).

12 to 21 does not belong; it should be 12 to 20

Exercise 9 - Compare two recipes

A: $30 \div 5 = 6$, so juice is $2 \times 6 = 12$ cups.

B: $30 \div 6 = 5$, so juice is $3 \times 5 = 15$ cups.

15 is greater than 12.

Recipe B is stronger.

Recipe	Juice	Water
A	12	30
B	15	30

Both recipes scaled to 30 cups of water.

Exercise 10 - Read a graph

The point (2,3) gives the ratio 2:3.

When x is 8: $8 \div 2 = 4$, $3 \times 4 = 12$.

When y is 15: $15 \div 3 = 5$, $2 \times 5 = 10$.

2:3; y = 12; x = 10

Exercises 11 and up

Exercise 11 - Sticker prices

Unit price: $\$6.00 \div 4 = \$1.50$ per sticker.

$$\$1.50 \times 6 = \$9.00$$

\$9.00

Exercise 12 - Rate from a table

Unit rate: $7 \div 2 = 3.5$ miles per hour.

1 hour: 3.5 miles; 2 hours: 7 miles; 4 hours: $3.5 \times 4 = 14$ miles; 5 hours: $3.5 \times 5 = 17.5$ miles.

3.5, 7, 14, 17.5 miles

Hours	1	2	4	5
Miles	3.5	7	14	17.5

Miles at 3.5 miles per hour.

Exercise 13 - Tile pattern

Blue: 5, 10, 15, 35. White: 8, 16, 24, ?

$$35 \div 5 = 7, \text{ so } 8 \times 7 = 56.$$

56 white tiles

Blue tiles	5	10	15	35
White tiles	8	16	24	56

Multiply both by 7.

Exercise 14 - Which point is not on the line?

For 1 to 5, y is always 5 times x. $3 \times 5 = 15$, not 12.

The point (3,12) is wrong; it should be (3,15).

Exercise 15 - Paint to total

One group has $3+2=5$ cups. $40 \div 5 = 8$ groups.

Red: $3 \times 8 = 24$. Blue: $2 \times 8 = 16$.

24 cups of red and 16 cups of blue

Exercise 16 - Gas tank

Unit rate: $140 \div 5 = 28$ miles per gallon.

$28 \times 8 = 224$ and $28 \times 12 = 336$.

336 miles for 12 gallons

Gallons	1	5	8	12
Miles	28	140	224	336

Miles per gallon is 28.

Exercise 17 - Compare two teams

A: $20 \div 2 = 10$, wins $3 \times 10 = 30$.

B: $20 \div 4 = 5$, wins $5 \times 5 = 25$.

30 is greater than 25.

Team A has the better record.

Team	Wins	Losses
A	30	20
B	25	20

Wins at 20 losses.

Exercise 18 - Bake sale cookies

Cost of 1 cookie: $\$9.00 \div 12 = \$0.75$.

$$\$0.75 \times 30 = \$22.50$$

\$22.50

Exercise 19 - Plant growth

Plant A: $2 \div 1 = 2$ cm per week.

Plant B: $3 \div 1 = 3$ cm per week.

Plant B grows faster, at 3 cm per week.

Exercise 20 - Walk-a-thon

Unit rate: $6 \div 2 = 3$ miles per hour.

21 miles: $21 \div 3 = 7$ hours.

5 hours: $3 \times 5 = 15$ miles.

7 hours; 15 miles

Key facts behind this ratio tables answers

Key facts

- Each column of a ratio table is an equivalent ratio.
- Multiply or divide both numbers by the same number; adding does not work.
- A double number line shows the same ratio on two scales.
- Plot each pair as (x, y); equivalent ratios lie on a line through the origin.
- To compare ratios, make one quantity the same in both tables.

How to use this ratio tables answers

Cover each solution, solve the exercise again, then uncover it and compare every line. If your answer differs, find the first step that changed and redo the exercise from there.

Download the ratio tables answers as a PDF with the button below and keep it with your notes.

Download the ratio tables answers as a PDF with the button below and keep it with your notes.

Download the ratio tables answers as a PDF with the button below and keep it with your notes.