Ratio Rescue: Finding Missing Values

Use times tables to solve ratio puzzles



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DID YOU KNOW?

Ratio just means for every.

4:2 means for every 4 of one thing, there are 2 of the other.



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What is a ratio?

⚖️

Ratio compares

Shows how much of one to another.

↔️

For every

Says for every 3, there are 2.

✏️

Write a:b

First thing first, like 3:2.

🔢

Scale together

Multiply both sides by same number.

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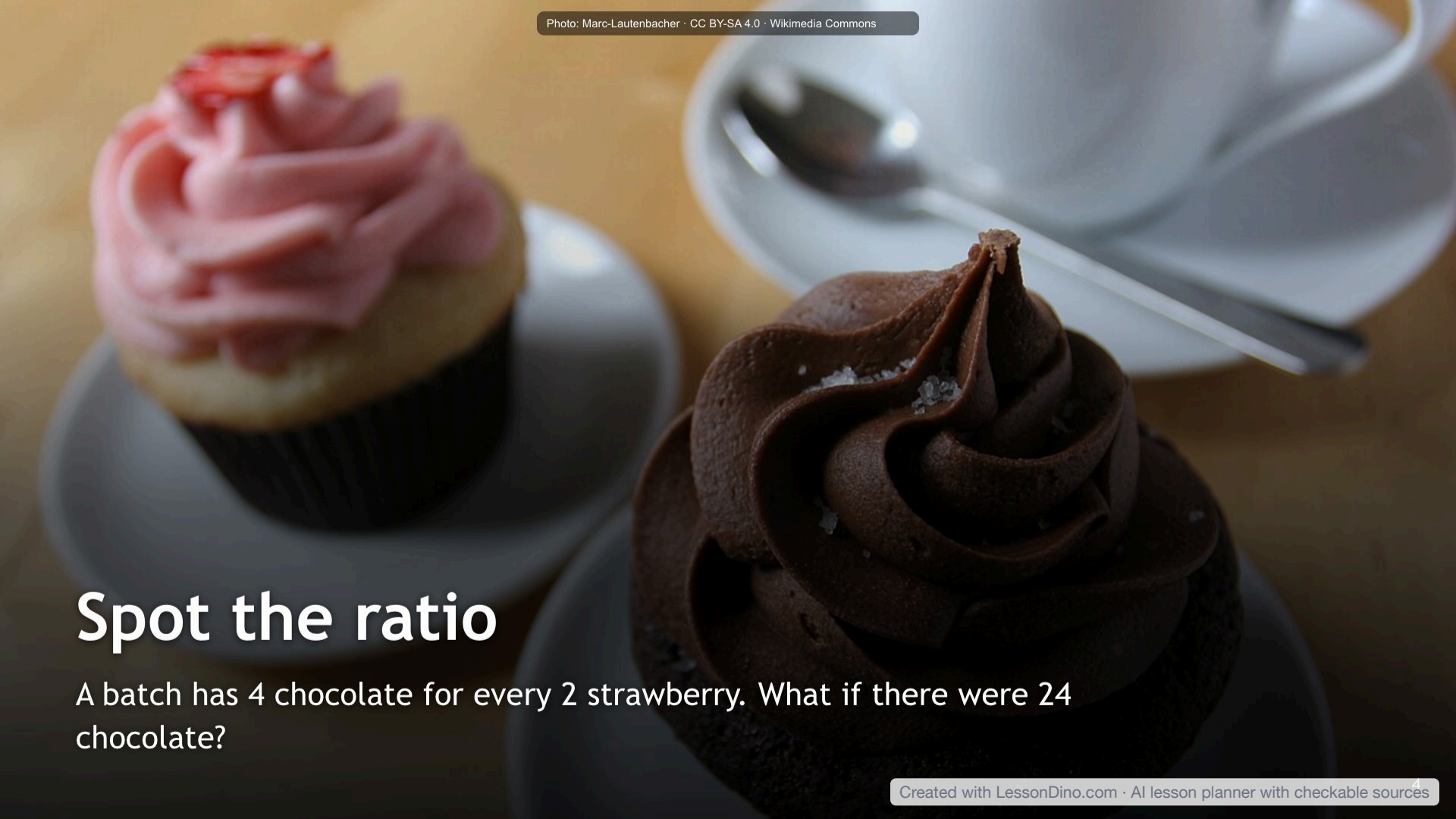


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Spot the ratio

A batch has 4 chocolate for every 2 strawberry. What if there were 24 chocolate?

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What could this be?

For every 3 blue spoons there are 2 red spoons. 18 blue are used. How many red?



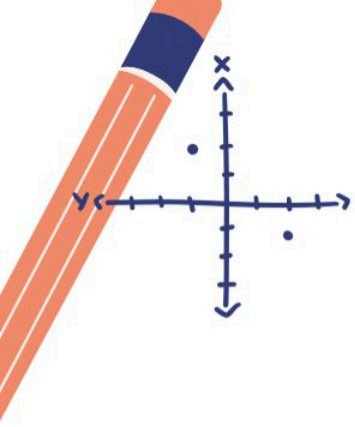
Watch: scaling up



▶ 0:00 – 5:00

- Watch how both sides grow together
- Listen for times-table multiplier

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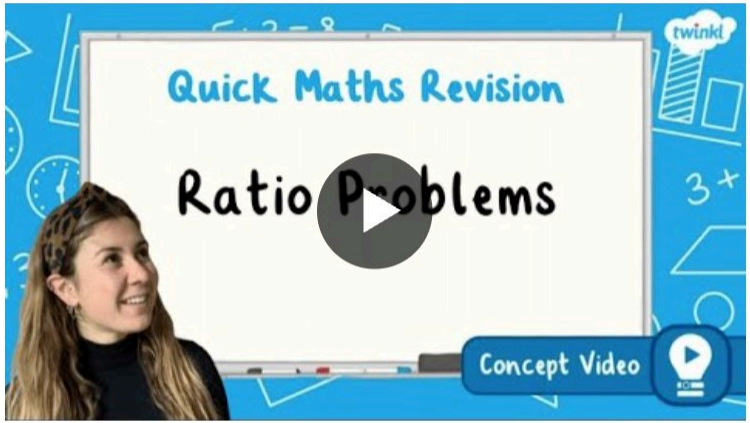


Our solver method

- Write a:b
- Multiply both sides
- **Solve ratio**
- Find multiplier
- Check by division

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Watch: pictures that help



▶ 0:00 – 5:00

- Spot the bar model parts
- Spot divide then multiply

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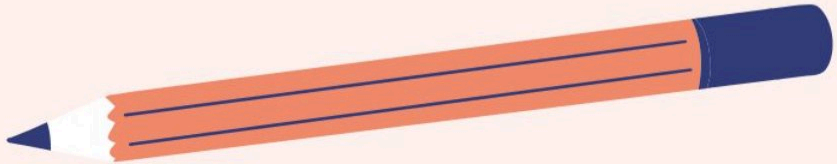
Your task

In pairs solve four missing-value puzzles using a table.

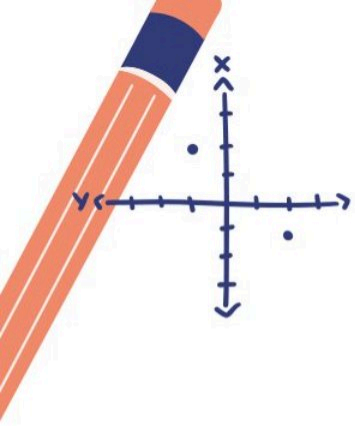
1. Write the ratio as two columns.
2. Find what one side was multiplied by.
3. Multiply the other side the same.

10 min

In pairs



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Try these together

Pencils 3:2

3 blue to 2 red. 18 blue, how many red?

Fruit 3:2

3 apples to 2 oranges. 9 apples, how many oranges?

Squash 2:1

2 juice to 1 water. 10 juice, how much water?

Shares £2:3

First share £10, what is second share?

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What helps you most?

Which tool helps you most with ratio?



A Bar model picture

B Table of values

C Times-table facts alone

Vote with your hands, then explain why.

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Quick quiz

1. Ratio 4:2. If 4 is 12, what is 2?
2. Ratio 3:2. If 3 is 9, what is 2?
3. Ratio 2:1. If 2 is 10, what is 1?
4. Ratio £2:3. If £2 is £10, what is 3?

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