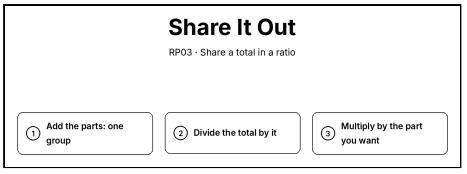
Share It Out: teacher script

RP03-V1 · RP03 Share a total in a ratio · teachers only. Without a screen, read each Say line and draw each Draw step on the board. About 92 seconds as a video.

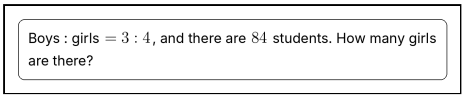
01



Say. Share it out. Add the parts to get the size of one group. Divide the total by it to count the groups. Then multiply by the part you want.

Draw. Write the title “Share It Out” and the steps: 1. Add the parts: one group; 2. Divide the total by it; 3. Multiply by the part you want.

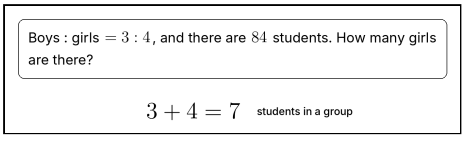
02



Say. The ratio of boys to girls is 3 to 4, and there are 84 students. How many girls are there?

Draw. Clear the board. Write “Boys : girls = 3 : 4, and there are 84 students. How many girls are there?” in a box at the top.

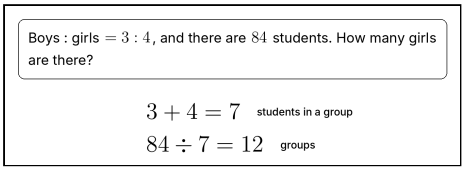
03



Say. Each group has 3 boys and 4 girls: 7 students.

Draw. Write 3 + 4 = 7 on the next line. Beside it, write “students in a group”.

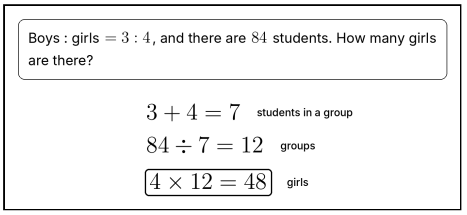
04



Say. 84 divided by 7 is 12, so there are 12 groups.

Draw. Write 84 ÷ 7 = 12 on the next line. Beside it, write “groups”.

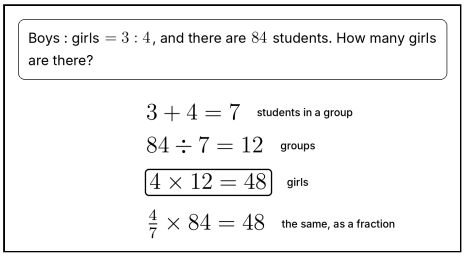
05



Say. Each group has 4 girls: 4 times 12 is 48 girls.

Draw. Write 4 × 12 = 48 and box it on the next line. Beside it, write “girls”.

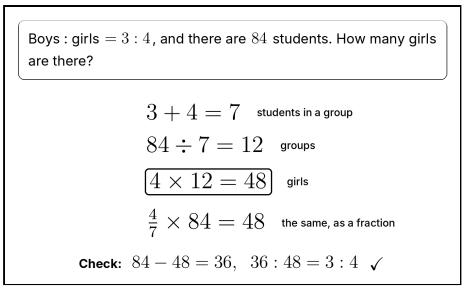
06



Say. It is the same as a fraction: the girls are four sevenths of the class, and four sevenths of 84 is 48.

Draw. Write 4/7 × 84 = 48 on the next line. Beside it, write “the same, as a fraction”.

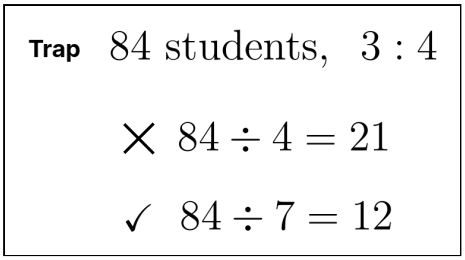
07



Say. Check: 84 minus 48 is 36 boys, and 36 to 48 is 3 to 4.

Draw. Below, write “Check: 84 − 48 = 36, 36 : 48 = 3 : 4” and tick it ✓.

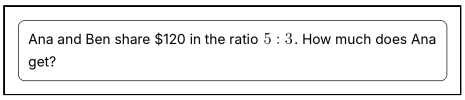
08



Say. Watch for the trap: dividing by one number of the ratio. Divide by the whole group, 3 plus 4, which is 7.

Draw. Clear the board. Write “Trap” and 84 students, 3 : 4. Below, write 84 ÷ 4 = 21 and cross it out ×. Then write 84 ÷ 7 = 12 with a tick ✓.

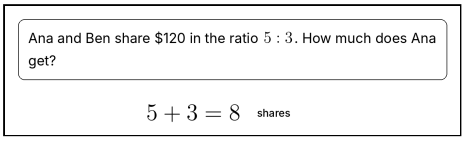
09



Say. Ana and Ben share 120 dollars in the ratio 5 to 3. How much does Ana get?

Draw. Clear the board. Write “Ana and Ben share $120 in the ratio 5 : 3. How much does Ana get?” in a box at the top.

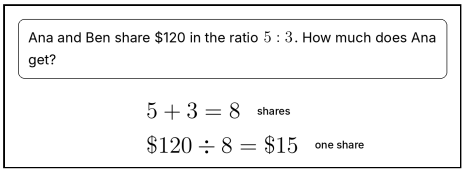
10



Say. 5 plus 3 is 8 shares in all.

Draw. Write 5 + 3 = 8 on the next line. Beside it, write “shares”.

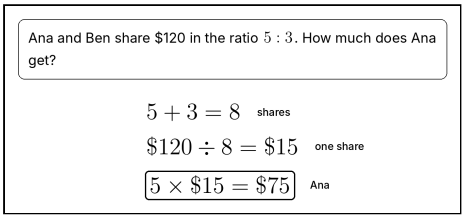
11



Say. One share is 120 dollars divided by 8, which is 15 dollars.

Draw. Write $120 ÷ 8 = $15 on the next line. Beside it, write “one share”.

12



Say. Ana has 5 shares: 75 dollars. Ben gets the other 45.

Draw. Write 5 × $15 = $75 and box it on the next line. Beside it, write “Ana”.

13

Trap $\text{Ana} : \text{Ben} = 5 : 3$

$\times \ \frac{5}{3} \times \$120$

✓ $\frac{5}{8} \times \$120 = \$75$

Say. Watch for the trap: using part to part as a fraction of the total. Five thirds compares Ana with Ben. Ana gets five eighths of the money.

Draw. Clear the board. Write “Trap” and Ana : Ben = 5 : 3. Below, write 5/3 × $120 and cross it out ×. Then write 5/8 × $120 = $75 with a tick ✓.

14

Your turn

Add the parts, divide the total, then multiply by the part you want.

Say. Now it is your turn. Add the parts, divide the total, then multiply by the part you want.

Draw. Point to today’s activity: Add the parts, divide the total, then multiply by the part you want.