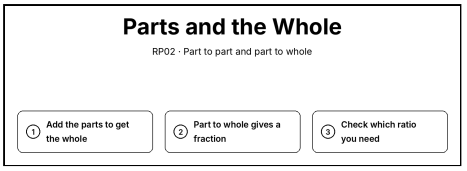
Parts and the Whole: teacher script

RP02-V1 · RP02 Part to part and part to whole · teachers only. Without a screen, read each Say line and draw each Draw step on the board. About 86 seconds as a video.

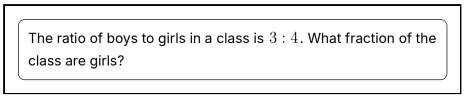
01



Say. Parts and the whole. Add the parts to get the whole. A part to whole ratio gives a fraction of the whole. And always check which ratio you need.

Draw. Write the title “Parts and the Whole” and the steps: 1. Add the parts to get the whole; 2. Part to whole gives a fraction; 3. Check which ratio you need.

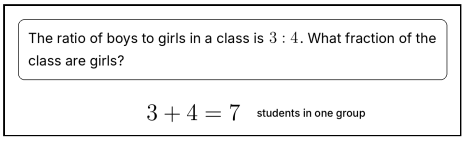
02



Say. The ratio of boys to girls in a class is 3 to 4. What fraction of the class are girls?

Draw. Clear the board. Write “The ratio of boys to girls in a class is 3 : 4. What fraction of the class are girls?” in a box at the top.

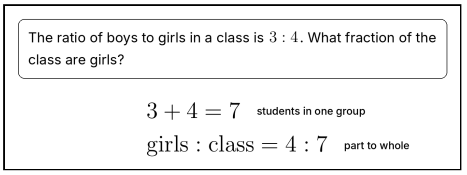
03



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 one group”.

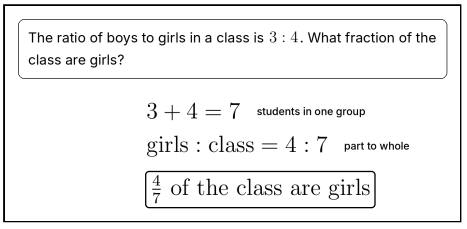
04



Say. So 4 of every 7 students are girls. Girls to the whole class is 4 to 7.

Draw. Write girls : class = 4 : 7 on the next line. Beside it, write “part to whole”.

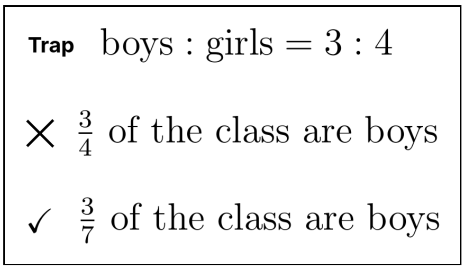
05



Say. As a fraction: four sevenths of the class are girls.

Draw. Write 4/7 of the class are girls and box it on the next line.

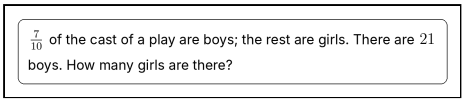
06



Say. Watch for the trap: reading part to part as a part of the whole. Three quarters compares the boys with the girls. Out of the whole class, the boys are 3 of every 7.

Draw. Clear the board. Write “Trap” and boys : girls = 3 : 4. Below, write 3/4 of the class are boys and cross it out ×. Then write 3/7 of the class are boys with a tick ✓.

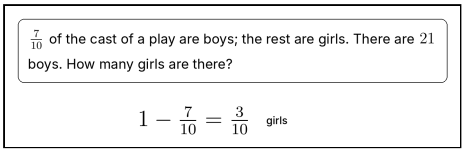
07



Say. Seven tenths of the cast of a play are boys, and the rest are girls. There are 21 boys. How many girls are there?

Draw. Clear the board. Write “7/10 of the cast of a play are boys; the rest are girls. There are 21 boys. How many girls are there?” in a box at the top.

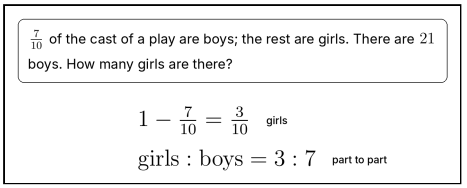
08



Say. The rest are girls: three tenths of the cast.

Draw. Write 1 − 7/10 = 3/10 on the next line. Beside it, write “girls”.

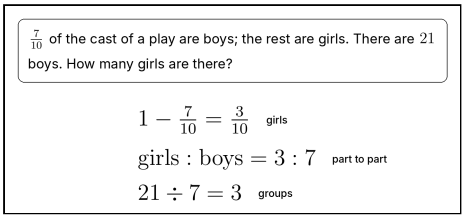
09



Say. In every 10, there are 3 girls and 7 boys. So girls to boys is 3 to 7.

Draw. Write girls : boys = 3 : 7 on the next line. Beside it, write “part to part”.

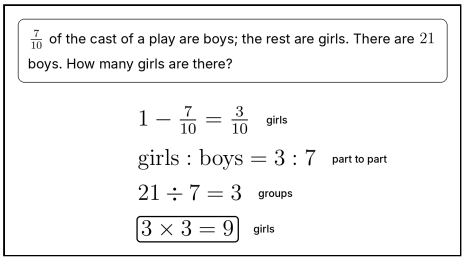
10



Say. 21 boys is 3 groups of 7 boys.

Draw. Write 21 ÷ 7 = 3 on the next line. Beside it, write “groups”.

11



Say. Each group has 3 girls: 3 times 3 is 9 girls.

Draw. Write 3 × 3 = 9 and box it on the next line. Beside it, write “girls”.

12

Trap $\frac{7}{10}$ are boys

$\times$ girls : boys $= 3 : 10$

$\checkmark$ girls : boys $= 3 : 7$

Say. Watch for the trap: mixing up which ratio you have. 3 to 10 compares the girls with the whole cast. Girls to boys compares the girls with the boys: 3 to 7.

Draw. Clear the board. Write “Trap” and 7/10 are boys. Below, write girls : boys = 3 : 10 and cross it out ×. Then write girls : boys = 3 : 7 with a tick ✓.

13

Your turn

Add the parts to get the whole,
then choose part to part or part to whole.

Say. Now it is your turn. Add the parts to get the whole, then choose part to part or part to whole.

Draw. Point to today’s activity: Add the parts to get the whole, then choose part to part or part to whole.