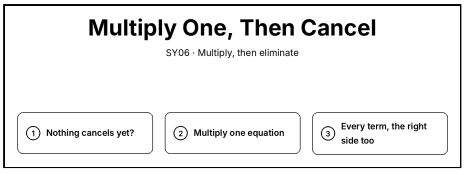
Multiply One, Then Cancel: teacher script

SY06-V1 · SY06 Multiply, then eliminate · teachers only. Without a screen, read each Say line and draw each Draw step on the board. About 64 seconds as a video.

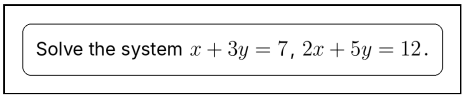
01



Say. Multiply one, then cancel. When nothing cancels yet, multiply one equation so that a letter matches. Multiply every term, the right side too.

Draw. Write the title “Multiply One, Then Cancel” and the steps: 1. Nothing cancels yet?; 2. Multiply one equation; 3. Every term, the right side too.

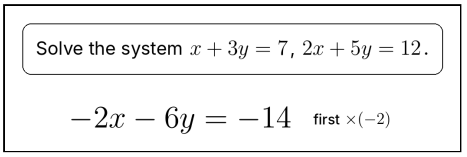
02



Say. Solve the system x + 3y = 7 and 2x + 5y = 12.

Draw. Clear the board. Write “Solve the system x + 3y = 7, 2x + 5y = 12.” in a box at the top.

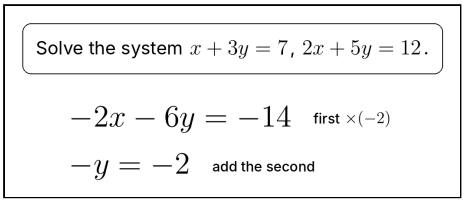
03



Say. Multiply the first equation by negative two, every term: −2x − 6y = −14.

Draw. Write −2x − 6y = −14 on the next line. Beside it, write “first × (−2)”.

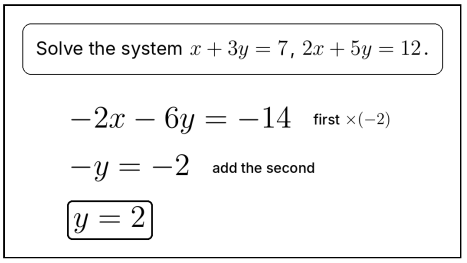
04



Say. Add the second equation: −2x and 2x cancel, and −y = −2.

Draw. Write −y = −2 on the next line. Beside it, write “add the second”.

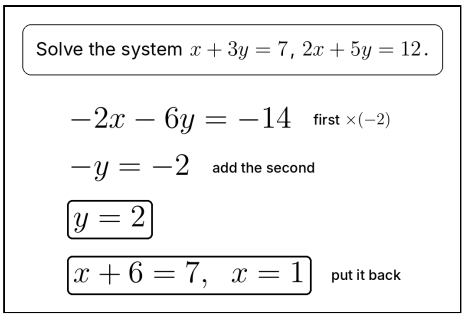
05



Say. So y = 2.

Draw. Write y = 2 and box it on the next line.

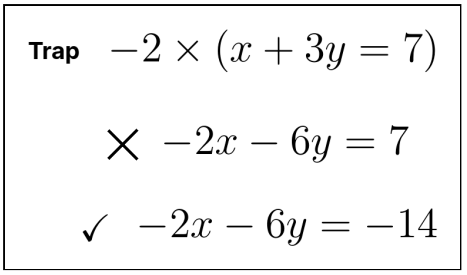
06



Say. Put it back into the first: x + 6 = 7, so x = 1. The solution is one, two.

Draw. Write x + 6 = 7, x = 1 and box it on the next line. Beside it, write “put it back”.

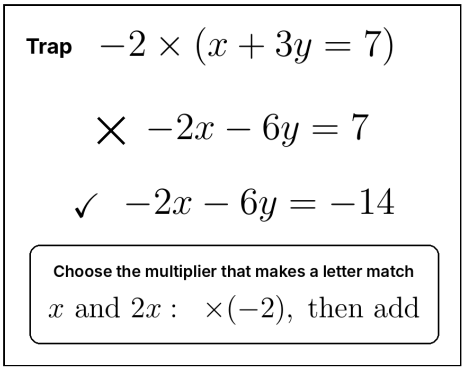
07



Say. Watch for the trap: multiplying only the letters. The seven is multiplied by negative two as well.

Draw. Clear the board. Write “Trap” and −2 × (x + 3y = 7). Below, write −2x − 6y = 7 and cross it out ×. Then write −2x − 6y = −14 with a tick ✓.

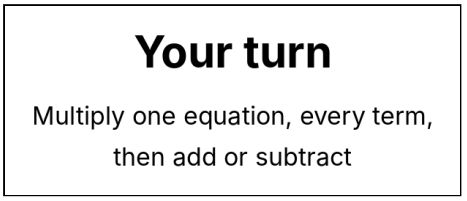
08



Say. Choose the multiplier that makes one letter's coefficients equal or opposite.

Draw. Write the rule in a box: x and 2x: ×(−2), then add.

09



Say. Now it is your turn. Multiply one equation, every term, then add or subtract.

Draw. Point to today’s activity: Multiply one equation, every term, then add or subtract