Every Letter Gets Its Value: teacher script

MV02-V1 · MV02 Evaluate with several letters · teachers only. Without a screen, read each Say line and draw each Draw step on the board. About 73 seconds as a video.

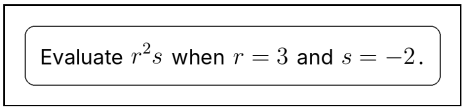
01



Say. Every letter gets its value. Put each value where its own letter is, in brackets. Then work it out, powers first.

Draw. Write the title “Every Letter Gets Its Value” and the steps: 1. Each value to its own letter; 2. In brackets; 3. Powers first.

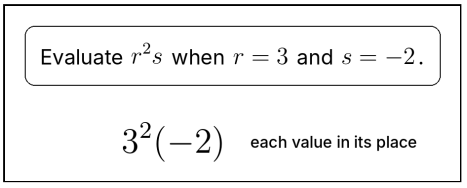
02



Say. Evaluate r²s when r = 3 and s = −2.

Draw. Clear the board. Write “Evaluate r²s when r = 3 and s = −2.” in a box at the top.

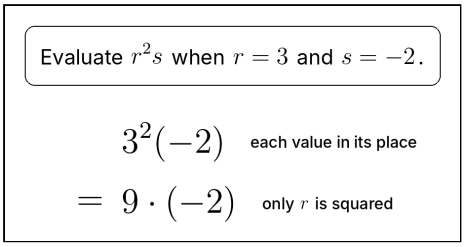
03



Say. Three goes where r is, and negative two, in brackets, where s is.

Draw. Write 3²(−2) on the next line. Beside it, write “each value in its place”.

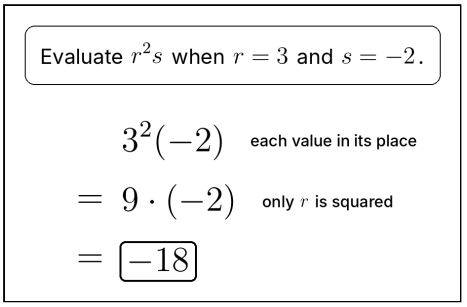
04



Say. Only r is squared: three squared is nine.

Draw. Write = 9 · (−2) on the next line. Beside it, write “only r is squared”.

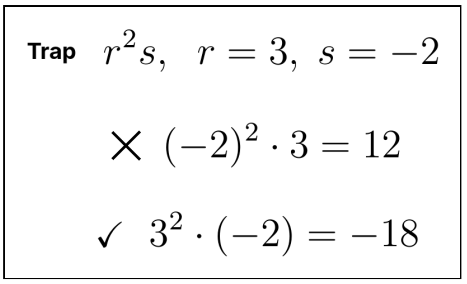
05



Say. Nine times negative two is −18.

Draw. Write = −18 and box it on the next line.

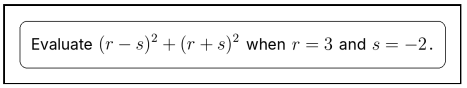
06



Say. Watch for the trap: swapping the values. The square is on r, and r is three: −18, not 12.

Draw. Clear the board. Write “Trap” and r²s, r = 3, s = −2. Below, write (−2)² · 3 = 12 and cross it out ×. Then write 3² · (−2) = −18 with a tick ✓.

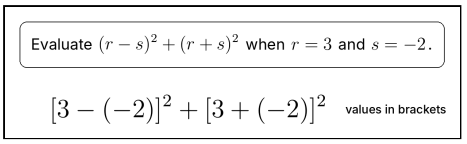
07



Say. Now evaluate (r − s)² + (r + s)², with the same values.

Draw. Clear the board. Write “Evaluate (r − s)² + (r + s)² when r = 3 and s = −2.” in a box at the top.

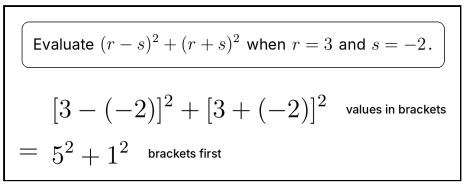
08



Say. In brackets: three minus negative two, and three plus negative two.

Draw. Write [3 − (−2)]² + [3 + (−2)]² on the next line. Beside it, write “values in brackets”.

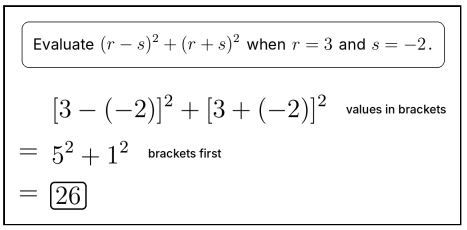
09



Say. Three minus negative two is five, and three plus negative two is one.

Draw. Write = 5² + 1² on the next line. Beside it, write “brackets first”.

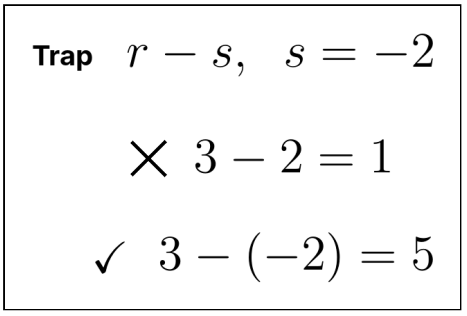
10



Say. Twenty-five plus one is 26.

Draw. Write = 26 and box it on the next line.

11



Say. Watch for the trap: leaving out the brackets loses the minus sign. Keep negative two in brackets: three minus negative two is 5.

Draw. Clear the board. Write “Trap” and r − s, s = −2. Below, write 3 − 2 = 1 and cross it out ×. Then write 3 − (−2) = 5 with a tick ✓.

12

Your turn

Each value to its own letter, in brackets

Say. Now it is your turn. Put each value where its own letter is, in brackets.

Draw. Point to today’s activity: Each value to its own letter, in brackets