Underlining and Color in Order of Operations Solutions (5.1C)

Below is the same order of operations problem solved twice. Pretend you are confused 5th grader and take a visual look at the difference between the solutions:

$12 \times (5 + 3) - 6 + 17$ $12 \times 8 - 6 + 17$ $96 - 6 + 17$ $90 + 17$ 107	$12 \times (\underline{5 + 3}) - 6 + 17$ $\underline{12 \times 8} - 6 + 17$ $\underline{96 - 6} + 17$ $\underline{90 + 17}$ 107

See how the arrows that connect one row with the next help your eye follow the solution? Underlining and arrows help students focus on the part of the string of numbers that they are working on in each step. The numbers and symbols that are "left over" are the ones that are recopied onto the next line of the solution.

Sometimes students want to draw a circle around the numbers they are working on. Please caution against this as the circles begin to look like parentheses, at least in students' heads.

As a teacher reviewing this solution, the arrows provide insight into what your student is thinking without you having to dig and figure it out. You'll be able to scan the underlining to see their thinking and identify their mistakes.