Possible Solutions

Students may choose to simplify this expression in the following way:

First, they must remember the order of operations as shown below.

Order of Operations	
( ), [ ], { }	Parentheses, Brackets, Braces
x^2, $\sqrt{}$	Exponents, Radicals
x, ÷	Multiplication, Division
+, --	Addition, Subtraction

a. Using this tool, there are not parentheses, brackets, or braces, so students would skip to the next step.

b. There is an exponent in this expression, so students would need to calculate that 3^2 = 3 x 3 x 3 = 27

c. Students would next perform any multiplication and/or division, starting from left to right. In this expression, they would first calculate 12 x 27 = 324. Then complete the division step, 324 ÷ 6 = 54.

d. Last, students would calculate any addition and/or subtraction, again starting from left to right. In this expression, the final step is to subtract 54 from 84.

e. 84 - 54 is the simplified version of the expression.

Since the problem asked how John would simplify, the answer would not be the solution to the solving of the expression, but instead just the most basic version (1 step). Therefore, the answer is not a difference, but an expression.