**Investigation: Powers of Powers**

You can use what you learned in the previous lesson to find a shortcut for simplifying expressions with powers. Complete each statement by showing equivalent expressions. Let your final answer be written as a base raised to a single power.

***Look at your answers.***

* What do you notice about the two exponents in the original expression as compared to the value of the exponent in the final expression?
* What operation would allow you to go straight from the original two exponents to the final one?
* Write a math rule to show how this would work in general or write it out in words.