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We can also simplify this using our Power Rule:

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Simplifying with our definition is more basic and easier to understand, but looking at it the second way helps us learn a new Power Rule: For any integers m and n

$$(x^m)^n = \underbrace{(x^m) \cdot (x^m) \cdot (x^m)}_{n-times} = x^{\underbrace{m+m+m}} = x^{(m \cdot n)}$$

Leaving us with the result:

$$(x^m)^n = x^{(m \cdot n)}$$