

Simplifying Exponents *With Common Bases*

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1 Introduction

The goal of this document is to serve as a personal reference to understand how exponents (*with common bases*), can be simplified. This document also serves as my first ever *LaTeX* creation. I am very excited to continue using this tool to aid in my mathematical endeavors.

2 The Basic Simplification Techniques

The product rule:

If m and n are integers and a is a real number, then:

$$a^m * a^n = a^m + n \tag{1}$$