



Revision Guides

Exponents Rules

Part - 3



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Introduction

As we know now that when we start working with the Exponents... and we need to perform operations with exponents, we need to follow some rules in order to simplify these mathematical expression.

The laws of exponents are more just "tricks" or short cuts that help us work with exponents.

Product Rule

In previous tutorial, We talked about Rule - 1, Quotient Rule and Rule - 2, Zero Exponent Property Rule and Rule - 3, Power Rule.

In this tutorial, Let's explore

Rule - 4

Product Rule

Product property of Exponent

The product rule for exponents states that when we multiply exponential expressions having the same base, we can add the exponents and keep the base unchanged.

When the exponents of two numbers in multiplication are the same, and bases are different then bases are multiplied and the exponent remains the same

Example

Let's try to apply this rule -

$$a^m \cdot a^n = a^{m+n}$$

Look at this example below -

$$2^3 \cdot 2^5$$

Can we simplify this?

$$2^3 \cdot 2^5 = 2^{3+5} = 2^8$$

Well that was easy
Isn't it?



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