Zero-over-Zero Theorem

By Kyumin Nam

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For some constant k, if $0/0 = k$, then $k = 1$.

Abstract

In this paper, we provide proof of *Zero-over-Zero Theorem*. This result would be some help for the 0^0 problem, and $0/0$ problem.

Contents

Introduction

In this paper, we define $z^0 \equiv z/z$ for $z \in \mathbb{C}$.[1] And, we assume that 0^0 is exits.

Proof

Let $y = x$, then $y' = x^0$.
Here, since the gradient of y is 1 so $x^0 = x/x = 1$ for $\forall x$.
Therefore, let $x = 0$, then $0^0 = 0/0 = 1$ so if $0/0$ exits, then $0/0 = 1$.
This completes the proof of the theorem. $\qquad\square$

Conclusion

Finally, we conclude that
For some constant k, if $0/0 = k$, then $k = 1$.

Reference

[1] "0의 0제곱". namu.wiki. Referred definition of z^0. Updated at 29 Dec 2021.