

# Logical Definitions

## Modus Ponens

$$A \rightarrow B$$

$$B$$

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$$A$$

Definitions are words or phrases that have a precise meaning. Definitions are used to explain the meaning of words and phrases. Definitions can be used to provide clarity and understanding of complex ideas and concepts.

## Modus Tollens

$$A \rightarrow B$$

$$\neg B$$

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$$\neg A$$

First click Modus Tollens - to see the mathematical definition

However, here is my interpretation of Modus Tollens. Basically if you know anything about logic - you know that the contrapositive is the logical equivalent to implication. This is the closest relation I can think of when thinkin with respect to Modus Tollens. Here is the proof:

*Proof:*

→ A → B

→

A	¬ A	B	¬ B	A → B	¬ B → ¬ A
T	F	T	F	T	T
T	F	F	T	F	F
F	T	T	F	T	T
F	T	F	T	T	T

□