

# Propositional logic

Methods: Logic, Part 4

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# What is logic?

proof   entailment   meaning

# What is logic?

proof **entailment** meaning

John saw Mary and Sue.  
Therefore, John saw Mary.

# What is **a** logic?

formal system that captures some structural properties of meaning

# What is propositional logic?

formal system that captures **truth-conditional meaning** of **sentential connectives**

# Sentential connectives

negation	“not”	$\neg$
conjunction	“and”	$\wedge$
disjunction	“or”	$\vee$
implication	“if ..., then ...”	$\rightarrow$
equivalence	“iff”	$\leftrightarrow$