

LOGIC Lecture 2

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Sentences -

- 1) Basic unit is simple declarative sentence - "Swans are graceful" or "John owns a Ford".
- 2) Compound sentences are built up from simple sentences. We use sentential operators :

AND
OR
NOT
IF... THEN
IF AND ONLY IF

- 3) A declarative sentence is compound if it contains another declarative sentence as a component.

(2)

4) Sentence A is a component of Sentence B if whenever Sentence A is replaced by any other declarative sentence, the result is a grammatically correct sentence.

5) Symbols for sentential operators:

Conjunction AND \cdot

Disjunction OR \vee

Negation NOT \sim or \neg

Conditional IF... THEN \supset

Biconditional IF AND ONLY IF \equiv