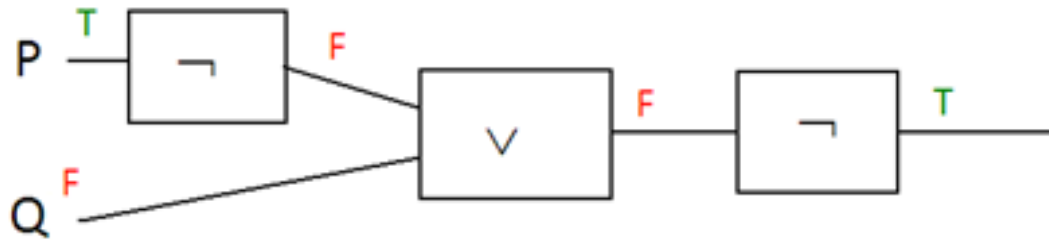
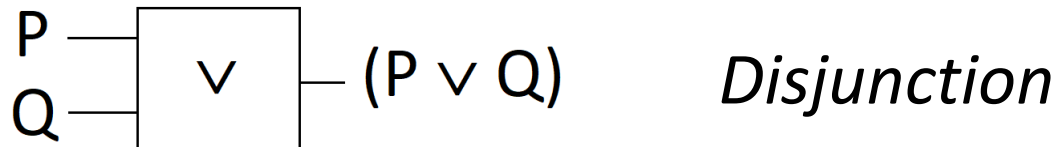
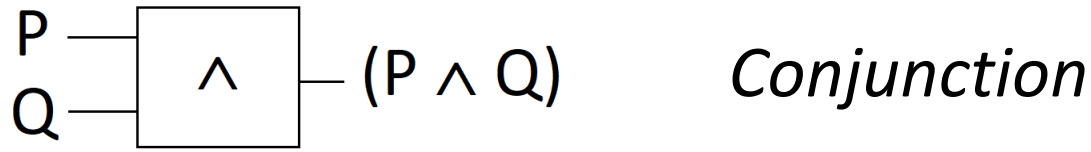


# Circuit Diagrams and Truth Tables

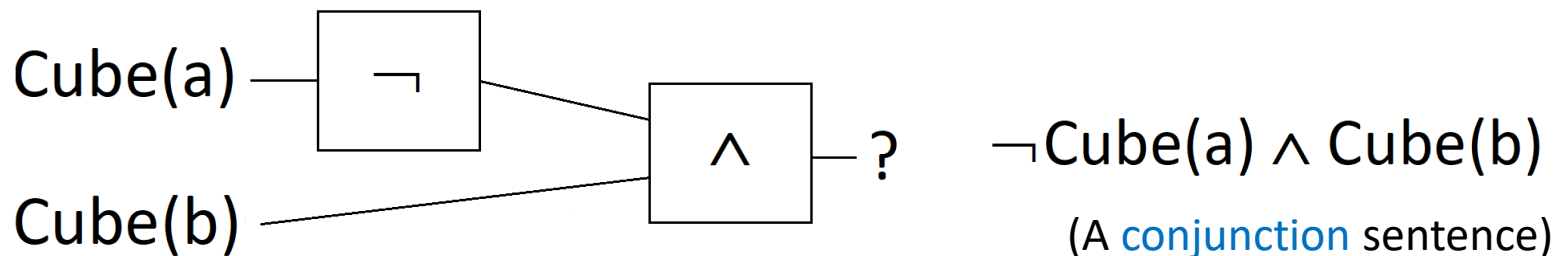
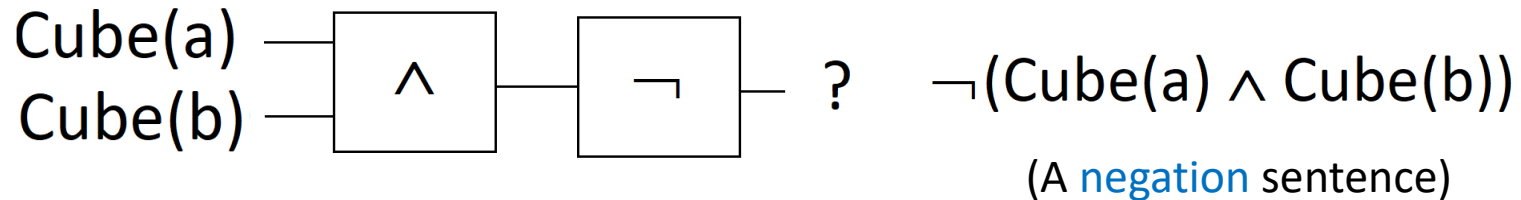


P	Q	$\neg(\neg P \vee Q)$
T	T	F
T	F	T
F	T	T
F	F	T

# Syntax of the Boolean operators



E.g. write the sentences below in FOL.



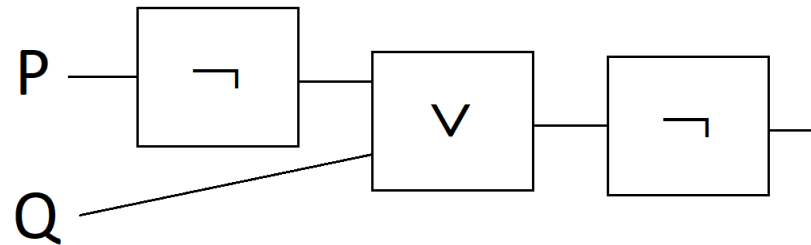
- The **type** of sentence (negation, conjunction or disjunction) is always the **last operator applied** in forming the sentence.

# Draw the circuit diagram

Sentence  
types?

$$\neg(\neg P \vee Q)$$

negation



$$(P \wedge \neg Q) \vee \neg R$$

disjunction

