

TABLE 3.9 Using the Dominance of Connectives

Statement	Most Dominant Connective Highlighted in Red	Statement's Meaning Clarified with Grouping Symbols	Type of Statement
$p \rightarrow q \wedge \sim r$	$p \rightarrow q \wedge \sim r$	$p \rightarrow (q \wedge \sim r)$	Conditional
$p \wedge q \rightarrow \sim r$	$p \wedge q \rightarrow \sim r$	$(p \wedge q) \rightarrow \sim r$	Conditional
$p \leftrightarrow q \rightarrow r$	$p \leftrightarrow q \rightarrow r$	$p \leftrightarrow (q \rightarrow r)$	Biconditional
$p \rightarrow q \leftrightarrow r$	$p \rightarrow q \leftrightarrow r$	$(p \rightarrow q) \leftrightarrow r$	Biconditional
$p \wedge \sim q \rightarrow r \vee s$	$p \wedge \sim q \rightarrow r \vee s$	$(p \wedge \sim q) \rightarrow (r \vee s)$	Conditional
$p \wedge q \vee r$	\wedge and \vee have the same level of dominance.	The meaning is ambiguous.	?

Grouping symbols must be given with this statement to determine whether it means $(p \wedge q) \vee r$, a disjunction, or $p \wedge (q \vee r)$, a conjunction.

Example 8: Write each compound statement below in symbolic form:

- If there is too much homework or a teacher is boring then I do not take that class.
- There is too much homework, or if a teacher is boring then I do not take that class.