

1.5 Conditional

Oct. 3, 2006

Conditional: Connecting 2
Statements with the
words: "If ^{1st stu.}..., then ^{2nd stu.}..."

* This is a compound
Statement.

Symbols: \rightarrow

Used to represent Conditional

$P \rightarrow Q$: If P then Q
 P implies Q

- antecedent: the "if" statement
in a conditional sentence
ie: P

- consequent: the "then" statement
in a conditional sentence
ie: Q

If it is cloudy,
Then it is snowing.

What is the antecedent?

"it is cloudy"

What is the consequent

"it is snowing"

ex) let p : Mr. Gensburg teaches Math.

q : Mr. Gensburg works in a school.
write the compound sentence:

$p \rightarrow q$: If Mr. G. teaches Math,
then Mr. G. works in a school.

$q \rightarrow \sim p$: If Mr. G. works in a school,
then Mr. G. does not teach Math.

write the following in symbolic form
If Mr. G. does not teach math,
Then Mr. G. does not work in a school

$\sim p \rightarrow \sim q$

~~$\sim(p \rightarrow q)$
It is False that~~

O.T.L.

① Pg 18: Exploratory:
1-6 (all)

② Pg 18-19: written:
1-23 (odd)

* Do not do the Truth
Value