

1.4 Disjunction

Sept. 22, 2006

- Disjunction: "Joining 2 Statements with the word 'OR'"

A compound statement formed by joining 2 Statements with the Word "or".

* The symbol " \vee " is used for "OR"

Let $p \rightarrow$ "Mr. G. Teaches Math"

$q \rightarrow$ "Five is an Even Number."

Combine + form a Disjunction.

$P \vee q \Rightarrow$ Mr. G. teaches math or
Five is an Even Number

\uparrow
Symbol
"read..."
 $P \text{ or } q$

\nearrow
In Words.

Let $r \Rightarrow$ "He-Man is a Cartoon"

$s \Rightarrow$ " $8+1=10$ "

Write the following disjunction ^{Sentences}

a) $r \vee s \Rightarrow$ He-man is a cartoon or $8+1=10$

b) $r \vee \sim s \Rightarrow$ He-man is a cartoon or $8+1 \neq 10$

c) $\sim r \vee s \Rightarrow$ He-man is not a cartoon or $8+1=10$

d) $\sim r \vee \sim s \Rightarrow$ He-man is not a cartoon or $8+1 \neq 10$

e) $\sim(r \vee s)$ It is false that He-man
is a cartoon or $8+1=10$

O.T.L.

① pg 14-15: Written: 1-18(all)

Do Not determine
the Truth Value