

Review

Proposition vs predicate

P

$P(x)$

prop.
X

bind value to variable x
eg: $P(3)$ $P(7)$

quantifier prop. prop

$\forall x P(x)$

prop.

$\exists x P(x)$

prop

Domain, set of discourse

$\{x_1, \dots, x_n\}$

$$\forall x P(x) \Leftrightarrow P(x_1) \wedge P(x_2) \wedge \dots \wedge P(x_n)$$

value

$$\Leftrightarrow \bigwedge_{i=1}^n P(x_i)$$

$$\exists x P(x) \Leftrightarrow P(x_1) \vee P(x_2) \vee \dots \vee P(x_n)$$

$$= \bigvee_{i=1}^n P(x_i)$$

1.5 Rules of inference ...

$$h_1 \wedge h_2 \wedge \dots \wedge h_n \rightarrow C$$

h_1

h_2

\vdots

h_n

C

If $p \rightarrow q$ is a tautology,

we write $p \Rightarrow q$.

Let $p(x)$ be a pred. & D be a domain of x .
Consider a set

$$I = \{x \in D \mid p(x)\}$$

truth set

enlarging

reducing

증인리

(부분 집합)

NECC. cond

증인리

weakening the cond.

stronger cond

증인리

suff. cond

(부분 집합)

