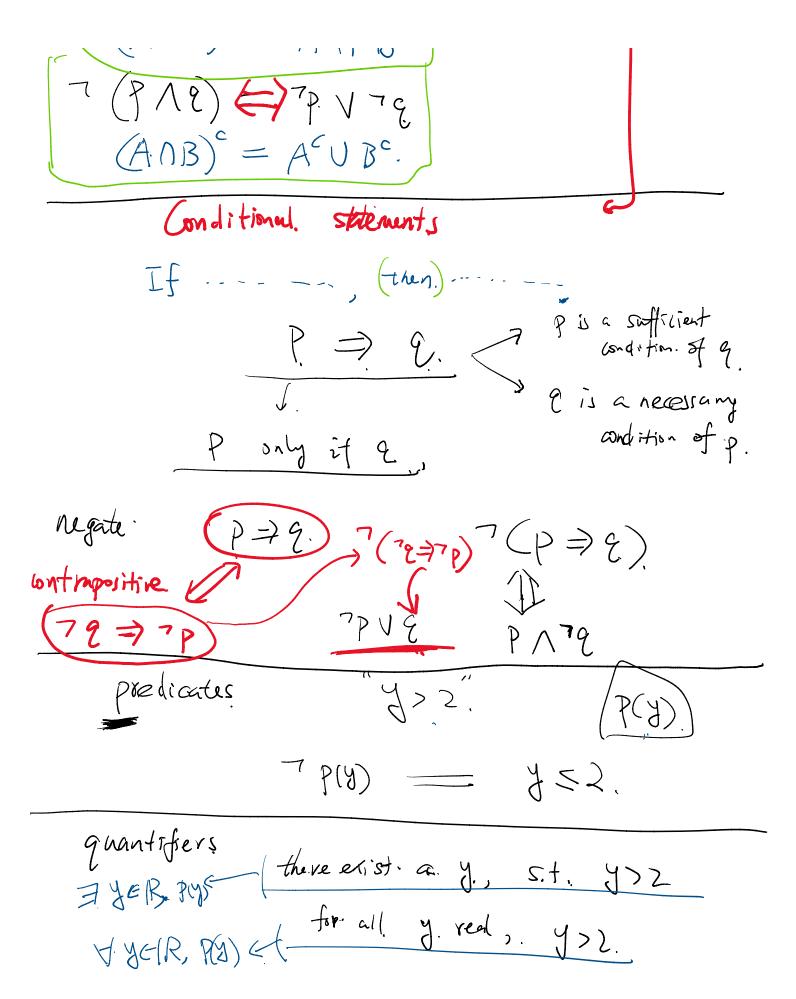
Mathematical Logic Thursday, January 19, 2023 11:08 AM	
Oth-order Logic propositional togic	
st-order logical predicate logic	
2nd-order 2>2. nth-order logic.	-, law of identity A is A" A is A" Acamot be both true and false Lexicological Acamot be and Alamot be and Al
Def: statement six proposition.	either true or fala.
"The statement is false"	is not a
Truth Value: T=1	is not a statement.
F. = 0	
regation '7 p" not p.	Truth table.



Etery integer. is even, Chere are even integers. Fernats Last Theorem: $\forall n \in \mathbb{N}, (\exists a, b, c \in \mathbb{N}, a^n + b^n = c^n)$ Math Induction principle.

S(1) (S(n)) S(+1)) = (men Sin). negation & quantifier. They integer is even)
We have at-least is not even.
on integer, 7 (there is a even.) = We connot find (an

 $7(\forall x, p(w)) \iff \exists y \neg p(y)$ $7(\exists w, p(w)) \iff \forall v, \neg p(w)$