Wateral Deduction Conditional Prosf A -> C (Assume A @ Rec so mong 3 Infer c , carcel assumption @ Conclude A -> C Examples Prove + A -1 (B-> A) - we assumed to be forehand B-> A ¥ -> (B->4) Rules Introduction kell ¿ introduce connectivis (E) Etime notion: lub :-> falle conne d'ive où t

Exemples $(1) b \rightarrow (4->k) + 3 \rightarrow (b \rightarrow k)$ ass to ge 2 prive this want the prawie \rightarrow E ー>エ 1 2 -> c) p -> (q->r) + (p / q) -> r (p->(-9-)~). PAP -> E (Modus Pours ->E (Modus Povous) ->E Communitional Preaf (p/19) -> 1

Strategus (1) feek at the target A + B -> C ms A as premis (2) ASSUME B 13) Use prems (i) + deword to infer c (4) Infer B->c More Examples (1) p-> (q -> r) + (p-> q) -> (p-> r) p->19->r) C Distribution Axiom P -> 9 9->6 MP (2,0) · **4**· HP (2,11 MP(4,3) p -> r ー エ (2,5)

(p->4)->1(116)

Examples
$$(A \rightarrow 6) \rightarrow 1 - 7(A \land 78)$$

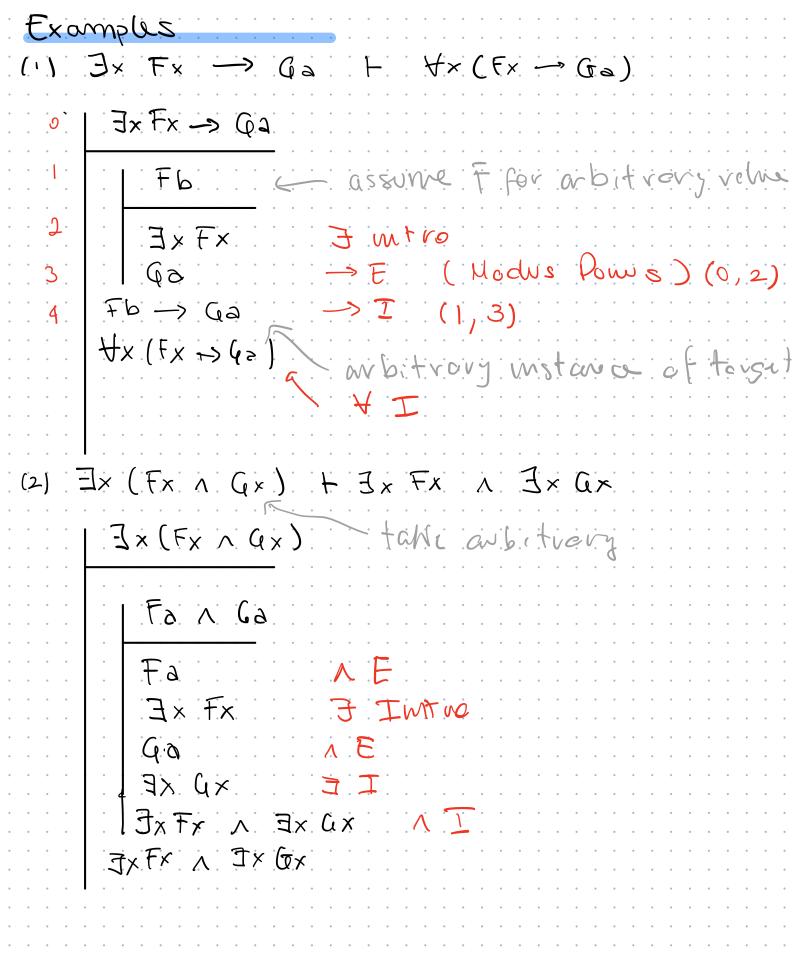
$$(A \rightarrow 9) \qquad 7(A \land 78)$$

$$A \rightarrow 2 \qquad A$$

$$A \rightarrow 3 \qquad A \rightarrow 3 \qquad$$

7 (AUB)

Quantifier Rules	
Universal Elimination Ay Fx A(xx) Fa A (cc) Existential Introduction	
$ t_a \rightarrow (t_a \cup t_a) $	λ (···· · · · · · · · · · · · · · · · ·
Existential Elimination A(Υχ : Α : (· · · · · · · · · · · · · · · · · ·



More Examples 9->(p->v) J -> (b ->) S -> p 4 | P -> 1 HP (e, 2) MP (1,3) S->-MP (4,5) | 10 -> (s-> x) ((S->6) -> (P) -> (P) If there get that assome +ws