BK : B knight
BN : B knave
Opp : opposites

$[BK \wedge (B \text{ says } S)] \rightarrow S$

Hard to deal with general S

Sep 8-1:59 PM

$BK \rightarrow Opp$

$AK \rightarrow BK$

$AK \rightarrow Opp$ trans.

⋮

$BN \wedge AN$ (N: knave)

$Opp \rightarrow (AK \wedge BN) \vee (AN \wedge BK)$

Sep 8-2:18 PM

This is hard, and it cheats: most of the reasoning is in our heads when we ~~decide~~ choose the wffs.

Sep 8-2:25 PM

Really want to be able to write:

If (X is a knight) and (X says Y) then Y.

P Q R

$(P \wedge Q) \rightarrow R$

Sep 8-2:26 PM

How do we start with a Hbl, and get a wff for it?

P	Q	R	?
T	T	T	T
...			
F	F	F	F

Sep 8-2:31 PM

Given any wff W, there are lots equiv to it:

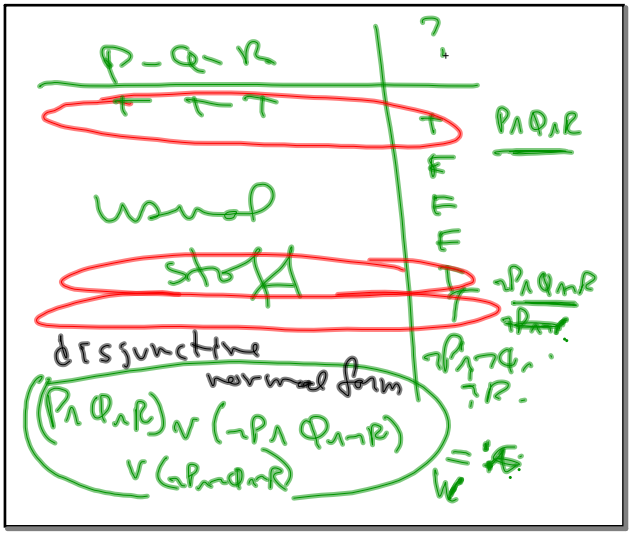
$\sim\sim W$

$W \wedge (p \vee \neg p)$

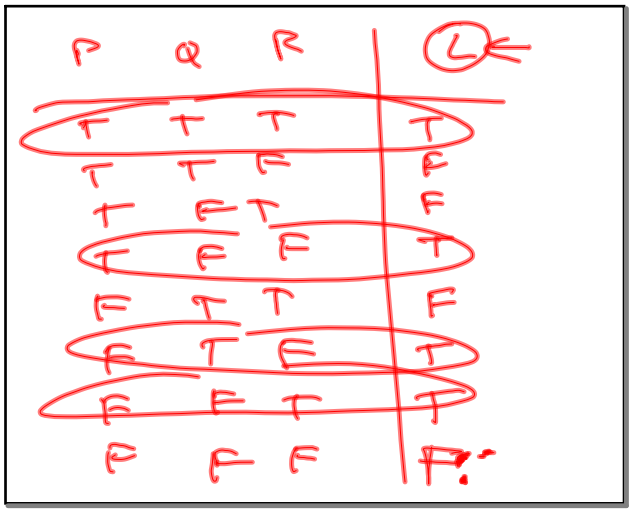
$W \vee W$

$W \vee (p \wedge \neg p)$

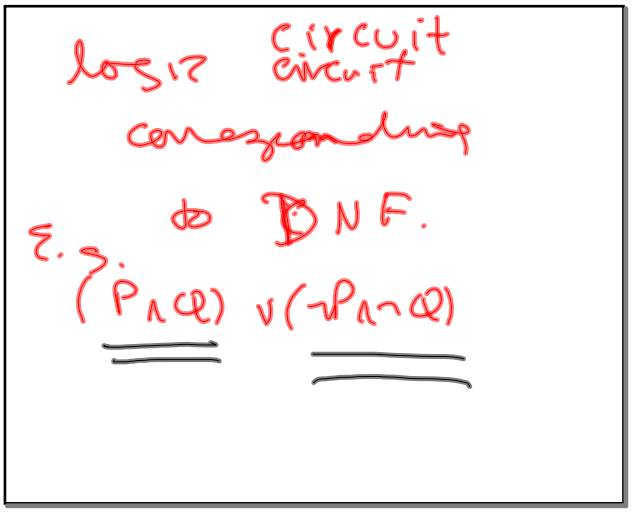
Sep 8-2:36 PM



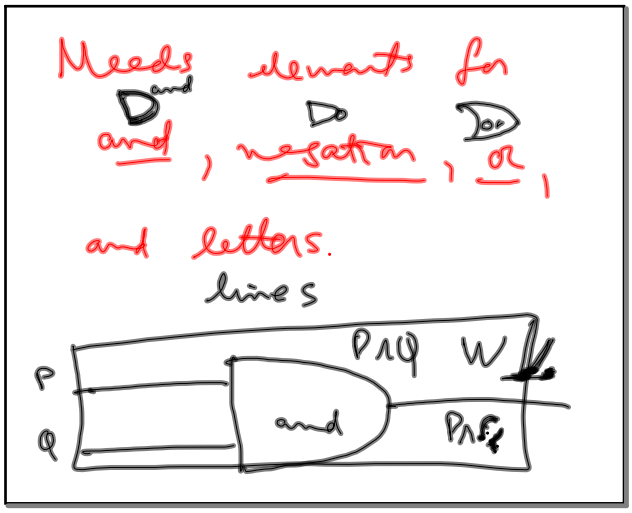
Sep 8-2:39 PM



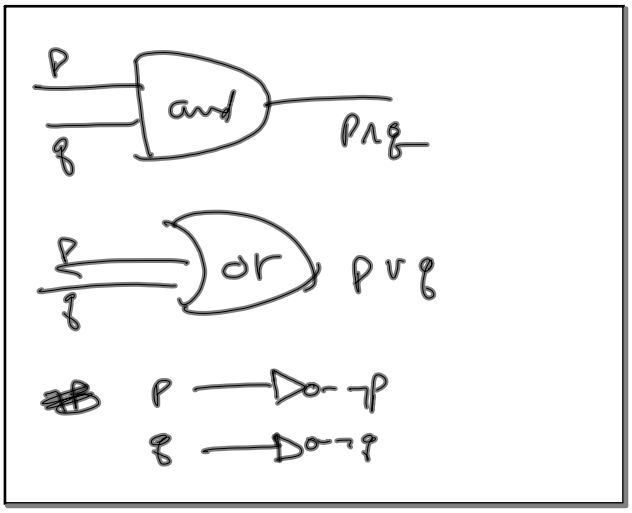
Sep 8-2:55 PM



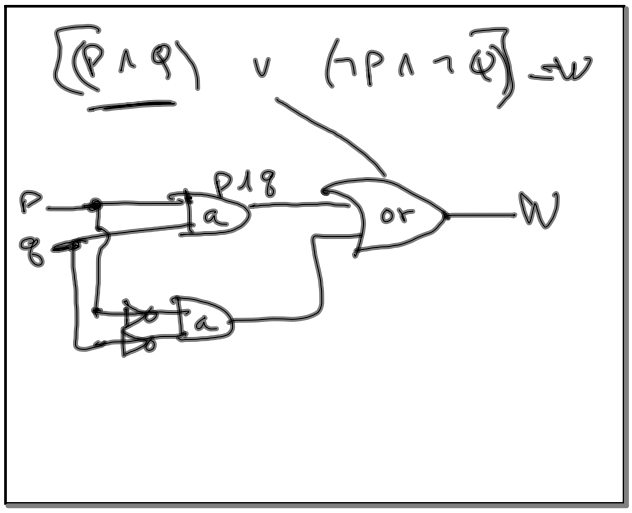
Sep 8-3:00 PM



Sep 8-3:02 PM



Sep 8-3:08 PM



Sep 8-3:12 PM