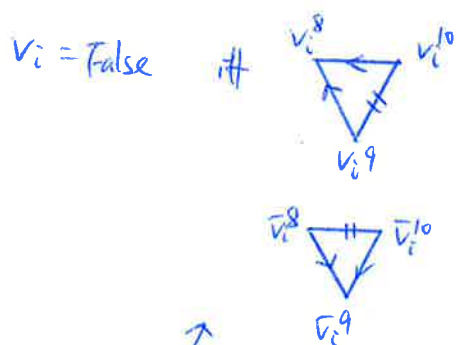
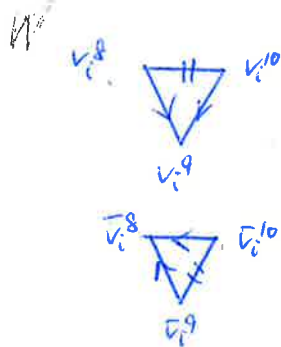


Pf | Morality  $\Rightarrow$  3-SAT  
 $v_i = \text{True}$  iff



Pf | 3-SAT  $\Rightarrow$  Morality.

if ~~3-SAT~~ if  $v_i = \text{True}$  then , if  $v_i = \text{False}$  then  
 then draw one branch of a clause gadget as





if it connects to a True literal.

or direct it as



if it connects to a False literal.

Then direct the rest of the arcs w/o introducing colliders.

