

... Comments on last week, discussion Ex. 1.4
 ("later" "...")

- pdf reference solution (Web):
 mathematical (formal) with human reasoning.
- Smartboard attempt from last week:

purely symbolic reasoning:

- algorithmic transformation
- atomic transformation

⇒ not sufficient

May 16-10:12

XSB:

?- count5(N, C, -, -, -, -), not isMember(C, EU, -).

→ all countries that are not member (of any type)
 in the EU

$F(N, C) = \exists$

$x_1, x_2, x_3, x_4: \text{count5}(N, C, x_1, x_2, x_3, x_4)$

$\wedge \forall t: \neg$

$\text{isMember}(C, EU, t)$

atomic Negation

$\neg \exists \dots$

$\neg \exists \dots$

$\forall x \neg \dots$

May 16-11:06

:- include(mondial).

tc(N,S) :- river(N,R,L,S,_,_,_,_,_,_), not (S = null).

tc(N,S) :- river(N,R,L,S2,_,_,_,_,_,_), not (R = null), tc(R,S). ↗ recursive rule

Go Horn-up

- 1. ^{round} ~~Round~~ : tc(Weser, North Sea).
tc(Elbe, North Sea).
⋮
- 2. ~~Round~~ : tc(Alder, North Sea). (via Weser)
tc(Saale, North Sea). (via Elbe)
- 3. ~~Round~~ : tc(Leiza, North Sea).
⋮

n rounds ... at some point no new facts
 derived → $n \approx n+1$
 $T_p^n = T_p^{n+1}$ → Fixed point