

Ex. 1. a) : $F(x) = p(x) \wedge \exists z: r(x,z)$
 GENERAL: $a, b \rightarrow$ become lost + weaker as examples

\circ $F(x) = p(x) \wedge \exists z: r(x,z)$
 m: $\exists z: r(x,z)$
 $\exists z: r(x,z) = \text{Proc}(F)$

SOL: select ϕ_1 from P where ϕ_2 not in (select ϕ_1 from τ)

rel. Alg. / B minus (a.k.a. minus, DE-Join) p

BNVF:

$F(x) = p(x) \wedge \exists z: r(x,z)$
 complete? self-referential?

no rel. Alg. / \rightarrow structural induction bottom-up

(no natural decomposition, SDB need domain)

rel. Alg. / \rightarrow structural induction bottom-up

rel. Alg. / \rightarrow structural induction bottom-up

rel. Alg. / \rightarrow structural induction bottom-up

May 2-10:13

Ex. 1. a) : $F(x) = p(x) \wedge \exists y: (q(y) \wedge \neg r(x,y))$
 SDBV? τ ?

SOL: select ϕ_1 from p where exists (select ϕ_2 from q where (ϕ_1, ϕ_2) not in (select ϕ from τ))

SDBV? τ ?

rel. Alg.

$F(x) = p(x) \wedge \exists y: (q(y) \wedge \neg r(x,y))$

rel. Alg. / \rightarrow structural induction bottom-up

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rel. Alg. / \rightarrow structural induction bottom-up

rel. Alg. / \rightarrow structural induction bottom-up

May 2-11:02

Ex. 1. a) : $F(x) = p(x) \wedge \exists y: (q(y) \wedge \neg r(x,y))$
 rel. Alg. / \rightarrow structural induction bottom-up

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May 2-11:19