mai 2017

1 $\forall x \, (p(x) \Rightarrow (\exists y \; i(y,x)))$

1 $\boxed{\neg p(x) \lor i(f(x), x)}$

2 $\forall x \, \forall y \, [(p(x) \land i(y,x)) \Rightarrow m(y)]$

2 $\boxed{\neg p(x) \lor \neg i(y,x) \lor m(y)}$

3 $\exists x \, (p(x) \land (\forall y \, [m(y) \Rightarrow a(x,y)]))$

$p(c) \land (\neg m(y) \lor a(c,y))$

3a $\boxed{p(c)}$

3b $\boxed{\neg m(y) \lor a(c,y)}$

4 $\forall x \, [(p(x) \land \neg r(x)) \Rightarrow \neg(\forall y \, (m(y) \Rightarrow a(x,y)))]$

$\forall x \, \exists y \, (\neg p(x) \lor r(x) \lor [m(y) \land \neg a(x,y)])$

4a $\boxed{\neg p(x) \lor r(x) \lor m(g(x))}$

4b $\boxed{\neg p(x) \lor r(x) \lor \neg a(x, g(x))}$

$\neg C \quad \exists x \, (p(x) \land r(x) \land [\exists y \, (i(y,x) \land a(x,y))])$

$\neg C \quad \forall x \, \forall y \; \neg p(x) \lor \neg r(x) \lor \neg i(y,x) \lor \neg a(x,y)$

5 $\boxed{\neg p(x) \lor \neg r(x) \lor \neg i(y,x) \lor \neg a(x,y)}$

1 $\neg p(x) \vee i(f(x),x)$

2 $\neg p(x) \vee \neg i(y,x) \vee m(y)$

3a $p(c)$

3b $\neg m(y) \vee a(c,y)$

4a $\neg p(x) \vee r(x) \vee m(g(x))$

4b $\neg p(x) \vee r(x) \vee \neg a(x,g(x))$

$\neg C$ : 5 $\neg p(x) \vee \neg r(x) \vee \neg i(y,x) \vee \neg a(x,y)$

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3a $p(c)$ unifier $x \leftarrow c$ puis compare

1 $\vdash$ $i(f(c),c)$ A

2 $\neg i(y,c) \vee m(y)$ B

4a $r(c) \vee m(g(c))$ C

4b $r(c) \vee \neg a(c,g(c))$ D

5 $\neg r(c) \vee \neg i(y,c) \vee \neg a(c,y)$ E

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3b $y \leftarrow g(c)$ / $\neg m(y) \vee a(c,y)$ $\vdash$ $\neg m(g(c)) \vee a(c,g(c))$

3b+C $r(c) \vee m(g(c))$ $\vdash$ $r(c) \vee a(c,g(c))$ F

FD $r(c) \vee \neg a(c,g(c))$ / $r(c) \vee a(c,g(c))$ $\vdash$ $r(c)$ G

$E \quad r(c)$

$G \quad \neg r(c) \vee \neg i(y,c) \vee \neg a(c,y) \vdash \neg i(y,c) \vee \neg a(c,y)$ $H$

$H \quad y \in f(c) \quad i(f(c),c)$

$B \quad \neg i(f(c),c) \vee \neg a(c,f(c)) \vdash \neg a(c,f(c))$ $I$

$I$ 3b $\quad \neg a(c,f(c))$

$\neg m(y) \vee a(c,y)$

$y \in f(c) \vdash \neg m(f(c))$ $J$

$A, B \quad i(f(c),c)$

$\neg i(y,c) \vee m(y)$

$y \in f(c) \vdash m(f(c))$ $K$

$J \; K \vdash \bot$