t34_yellow16 (TMcLh1pxj3cravAPRawpUbnckga8zb7tjPg)

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Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v4\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v1\_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4\_waybel\_3 : \iota \Rightarrow o$ be given. Let $v1\_yellow16 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k5\_yellow\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r2\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4\_waybel\_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3\_waybel\_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_waybel\_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_yellow16 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v5\_orders\_2 : \iota \Rightarrow o$ be given. Let $l1\_orders\_2 : \iota \Rightarrow o$ be given. Let $r1\_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_orders\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_orders\_2 : \iota \Rightarrow o$ be given. Let $v4\_orders\_2 : \iota \Rightarrow o$ be given. Let $v1\_yellow\_1 : \iota \Rightarrow o$ be given. Let $v5\_waybel\_3 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(\neg v1\_xboole\_0\ X0) \Rightarrow (\forall X1.((v1\_relat\_1\ X1) \wedge ((v4\_relat\_1\ X1\ X0) \wedge ((v1\_funct\_1\ X1) \wedge ((v1\_partfun1\ X1\ X0) \wedge ((v4\_waybel\_3\ X1) \wedge (v1\_yellow16\ X1)))))) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k5\_yellow\_1\ X0\ X1)))) \Rightarrow ((r2\_yellow\_0\ (k5\_yellow\_1\ X0\ X1)\ X2) \Leftrightarrow (\forall X3.(m1\_subset\_1\ X3\ X0) \Rightarrow (r2\_yellow\_0\ (k2\_yellow16\ X0\ X1\ X3)\ (k5\_waybel\_3\ X0\ X1\ X3\ X2))))))) \tag{1}$$

Assume the following.

$$\forall X0.((v5\_orders\_2\ X0) \wedge (l1\_orders\_2\ X0)) \Rightarrow (\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X2.(((X1 = k2\_yellow\_0\ X0\ X2) \wedge (r2\_yellow\_0\ X0\ X2)) \Rightarrow ((r1\_lattice3\ X0\ X2\ X1) \wedge (\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0)) \Rightarrow ((r1\_lattice3\ X0\ X2\ X3) \Rightarrow (r1\_orders\_2\ X0\ X3\ X1))))) \wedge (((r1\_lattice3\ X0\ X2\ X1) \wedge (\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0)) \Rightarrow ((r1\_lattice3\ X0\ X2\ X3) \Rightarrow (r1\_orders\_2\ X0\ X3\ X1)))) \Rightarrow ((X1 = k2\_yellow\_0\ X0\ X2) \wedge (r2\_yellow\_0\ X0\ X2))))) \tag{2}$$

Assume the following.

$$\forall X0.(\neg v1\_xboole\_0\ X0)\Rightarrow(\forall X1.((v1\_relat\_1\ X1)\wedge((v4\_relat\_1\ X1\ X0)\wedge((v1\_funct\_1\ X1)\wedge((v1\_partfun1\ X1\ X0)\wedge((v4\_waybel\_3\ X1)\wedge(v1\_yellow16\ X1))))))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k5\_yellow\_1\ X0\ X1))))\Rightarrow(\neg(\forall X3.(m1\_subset\_1\ X3\ X0)\Rightarrow(r2\_yellow\_0\ (k2\_yellow16\ X0\ X1\ X3)\ (k5\_waybel\_3\ X0\ X1\ X3\ X2)))\wedge(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ (k5\_yellow\_1\ X0\ X1)))\Rightarrow(\neg(\forall X4.(m1\_subset\_1\ X4\ X0)\Rightarrow(k4\_waybel\_3\ X0\ X1\ X3\ X4 = k2\_yellow\_0\ (k3\_waybel\_3\ X0\ X1\ X4)\ (k5\_waybel\_3\ X0\ X1\ X4\ X2)))\wedge((r1\_lattice3\ (k5\_yellow\_1\ X0\ X1)\ X2\ X3)\wedge(\forall X4.(m1\_subset\_1\ X4\ (u1\_struct\_0\ (k5\_yellow\_1\ X0\ X1)))\Rightarrow((r1\_lattice3\ (k5\_yellow\_1\ X0\ X1)\ X2\ X4)\Rightarrow(r1\_orders\_2\ (k5\_yellow\_1\ X0\ X1)\ X4\ X3)))))))) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X0)\wedge((v1\_relat\_1\ X1)\wedge((v4\_relat\_1\ X1\ X0)\wedge((v1\_funct\_1\ X1)\wedge((v1\_partfun1\ X1\ X0)\wedge((v4\_waybel\_3\ X1)\wedge(v1\_yellow16\ X1)))))))\Rightarrow((v1\_orders\_2\ (k5\_yellow\_1\ X0\ X1))\wedge((v4\_orders\_2\ (k5\_yellow\_1\ X0\ X1))\wedge(v5\_orders\_2\ (k5\_yellow\_1\ X0\ X1)))) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.((v1\_relat\_1\ X1)\wedge((v4\_relat\_1\ X1\ X0)\wedge((v1\_funct\_1\ X1)\wedge((v1\_partfun1\ X1\ X0)\wedge(v1\_yellow\_1\ X1)))))\Rightarrow((v1\_orders\_2\ (k5\_yellow\_1\ X0\ X1))\wedge(l1\_orders\_2\ (k5\_yellow\_1\ X0\ X1))) \tag{5}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge(v1\_yellow16\ X0))\Rightarrow((v1\_relat\_1\ X0)\wedge((v1\_yellow\_1\ X0)\wedge(v5\_waybel\_3\ X0))) \tag{6}$$

Theorem 1

$$\forall X0.(\neg v1\_xboole\_0\ X0)\Rightarrow(\forall X1.((v1\_relat\_1\ X1)\wedge((v4\_relat\_1\ X1\ X0)\wedge((v1\_funct\_1\ X1)\wedge((v1\_partfun1\ X1\ X0)\wedge((v4\_waybel\_3\ X1)\wedge(v1\_yellow16\ X1)))))))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k5\_yellow\_1\ X0\ X1))))\Rightarrow((r2\_yellow\_0\ (k5\_yellow\_1\ X0\ X1)\ X2)\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ X0)\Rightarrow(k4\_waybel\_3\ X0\ X1\ (k2\_yellow\_0\ (k5\_yellow\_1\ X0\ X1)\ X2)\ X3 = k2\_yellow\_0\ (k3\_waybel\_3\ X0\ X1\ X3)\ (k5\_waybel\_3\ X0\ X1\ X3\ X2))))))$$