t27_waybel27 (TMSKBXHtXb-gaHKgQEEc5PANSn1ZZboFxLoL)

October 27, 2020

Let $v3\_orders\_2 : \iota \Rightarrow o$ be given. Let $v4\_orders\_2 : \iota \Rightarrow o$ be given. Let $v5\_orders\_2 : \iota \Rightarrow o$ be given. Let $v1\_lattice3 : \iota \Rightarrow o$ be given. Let $v2\_lattice3 : \iota \Rightarrow o$ be given. Let $v3\_lattice3 : \iota \Rightarrow o$ be given. Let $l1\_orders\_2 : \iota \Rightarrow o$ 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 $k2\_waybel27 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_yellow\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v4\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v8\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v4\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $v1\_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v5\_orders\_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v22\_waybel\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_monoid\_0 : \iota \Rightarrow o$ be given. Let $v1\_orders\_2 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge ((v3\_orders\_2\ X0) \wedge ((v4\_orders\_2\ X0) \wedge ((v5\_orders\_2\ X0) \wedge ((v3\_lattice3\ X0) \wedge (l1\_orders\_2\ X0)))))) \Rightarrow (\forall X1.((\neg v2\_struct\_0\ X1) \wedge ((v4\_yellow\_0\ X1\ X0) \wedge (m1\_yellow\_0\ X1\ X0))) \Rightarrow (\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X1))) \Rightarrow ((k1\_yellow\_0\ X0\ X2 \in u1\_struct\_0\ X1) \Rightarrow (k1\_yellow\_0\ X1\ X2 = k1\_yellow\_0\ X0\ X2)))) \tag{1}$$

Assume the following.

$$\forall X0.((v3\_orders\_2\ X0) \wedge ((v4\_orders\_2\ X0) \wedge ((v5\_orders\_2\ X0) \wedge ((v1\_lattice3\ X0) \wedge ((v2\_lattice3\ X0) \wedge ((v3\_lattice3\ X0) \wedge (l1\_orders\_2\ X0))))))) \Rightarrow (\forall X1.((v3\_orders\_2\ X1) \wedge ((v4\_orders\_2\ X1) \wedge ((v5\_orders\_2\ X1) \wedge ((v1\_lattice3\ X1) \wedge ((v2\_lattice3\ X1) \wedge ((v3\_lattice3\ X1) \wedge (l1\_orders\_2\ X1))))))) \Rightarrow ((v8\_yellow\_0\ (k2\_waybel27\ X0\ X1)\ (k6\_yellow\_1\ (u1\_struct\_0\ X0)\ X1)) \wedge (m1\_yellow\_0\ (k2\_waybel27\ X0\ X1)\ (k6\_yellow\_1\ (u1\_struct\_0\ X0)\ X1)))) \tag{2}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v5\_orders\_2\ X0)\wedge((v3\_lattice3\ X0)\wedge(l1\_orders\_2\ X0))))\Rightarrow(\forall X1.(r1\_yellow\_0\ X0\ X1)\wedge(r2\_yellow\_0\ X0\ X1)) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2\_struct\_0\ X0)\wedge(l1\_orders\_2\ X0))\wedge((\neg v2\_struct\_0\ X1)\wedge((v3\_orders\_2\ X1)\wedge((v5\_orders\_2\ X1)\wedge(l1\_orders\_2\ X1)))))\Rightarrow(\exists X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1))))\wedge((v1\_relat\_1\ X2)\wedge((v4\_relat\_1\ X2\ (u1\_struct\_0\ X0))\wedge((v5\_relat\_1\ X2\ (u1\_struct\_0\ X1))\wedge((v1\_funct\_1\ X2)\wedge((\neg v1\_xboole\_0\ X2)\wedge((v1\_partfun1\ X2\ (u1\_struct\_0\ X0))\wedge((v1\_funct\_2\ X2\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1))\wedge((v5\_orders\_3\ X2\ X0\ X1)\wedge(v22\_waybel\_0\ X2\ X0\ X1))))))))))) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2\_struct\_0\ X0)\wedge(l1\_orders\_2\ X0))\wedge((\neg v2\_struct\_0\ X1)\wedge((v3\_orders\_2\ X1)\wedge((v5\_orders\_2\ X1)\wedge(l1\_orders\_2\ X1)))))\Rightarrow((\neg v2\_struct\_0\ (k2\_waybel27\ X0\ X1))\wedge((v1\_monoid\_0\ (k2\_waybel27\ X0\ X1))\wedge((v1\_orders\_2\ (k2\_waybel27\ X0\ X1))\wedge((v3\_orders\_2\ (k2\_waybel27\ X0\ X1))\wedge(v5\_orders\_2\ (k2\_waybel27\ X0\ X1)))))) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X0)\wedge((v3\_orders\_2\ X1)\wedge((v4\_orders\_2\ X1)\wedge((v5\_orders\_2\ X1)\wedge((v1\_lattice3\ X1)\wedge((v2\_lattice3\ X1)\wedge((v3\_lattice3\ X1)\wedge(l1\_orders\_2\ X1)))))))\Rightarrow((v1\_orders\_2\ (k6\_yellow\_1\ X0\ X1))\wedge(v3\_lattice3\ (k6\_yellow\_1\ X0\ X1))) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v2\_struct\_0\ X1)\wedge((v5\_orders\_2\ X1)\wedge(l1\_orders\_2\ X1)))\Rightarrow((v1\_orders\_2\ (k6\_yellow\_1\ X0\ X1))\wedge(v5\_orders\_2\ (k6\_yellow\_1\ X0\ X1))) \tag{7}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v2\_struct\_0\ X1)\wedge((v4\_orders\_2\ X1)\wedge(l1\_orders\_2\ X1)))\Rightarrow((v1\_orders\_2\ (k6\_yellow\_1\ X0\ X1))\wedge(v4\_orders\_2\ (k6\_yellow\_1\ X0\ X1))) \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v2\_struct\_0\ X1)\wedge((v3\_orders\_2\ X1)\wedge(l1\_orders\_2\ X1)))\Rightarrow((v1\_orders\_2\ (k6\_yellow\_1\ X0\ X1))\wedge(v3\_orders\_2\ (k6\_yellow\_1\ X0\ X1))) \tag{9}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v2\_struct\_0\ X1)\wedge(l1\_orders\_2\ X1))\Rightarrow((\neg v2\_struct\_0\ (k6\_yellow\_1\ X0\ X1))\wedge(v1\_orders\_2\ (k6\_yellow\_1\ X0\ X1))) \tag{10}$$

Assume the following.

$$\forall X0.\forall X1.(l1\_orders\_2\ X1)\Rightarrow((v1\_orders\_2\ (k6\_yellow\_1\ X0\ X1))\wedge(l1\_orders\_2\ (k6\_yellow\_1\ X0\ X1))) \tag{11}$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v2\_struct\_0\ X0)\wedge(l1\_orders\_2\ X0))\wedge((\neg v2\_struct\_0\ X1)\wedge((v3\_orders\_2\ X1)\wedge((v5\_orders\_2\ X1)\wedge(l1\_orders\_2\ X1)))))\Rightarrow((v1\_orders\_2\ (k2\_waybel27\ X0\ X1))\wedge(l1\_orders\_2\ (k2\_waybel27\ X0\ X1))) \tag{12}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge(l1\_orders\_2\ X0))\Rightarrow(\forall X1.((\neg v2\_struct\_0\ X1)\wedge((v3\_orders\_2\ X1)\wedge((v5\_orders\_2\ X1)\wedge(l1\_orders\_2\ X1))))\Rightarrow(\forall X2.((v1\_orders\_2\ X2)\wedge(l1\_orders\_2\ X2))\Rightarrow((X2 = k2\_waybel27\ X0\ X1)\Leftrightarrow(((v4\_yellow\_0\ X2\ (k6\_yellow\_1\ (u1\_struct\_0\ X0)\ X1))\wedge(m1\_yellow\_0\ X2\ (k6\_yellow\_1\ (u1\_struct\_0\ X0)\ X1)))\wedge(\forall X3.(X3 \in u1\_struct\_0\ X2)\Leftrightarrow((v1\_funct\_1\ X3)\wedge((v1\_funct\_2\ X3\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1))\wedge((v22\_waybel\_0\ X3\ X0\ X1)\wedge(m1\_subset\_1\ X3\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1))))))))))) \tag{13}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge(l1\_orders\_2\ X0))\Rightarrow(\forall X1.(m1\_yellow\_0\ X1\ X0)\Rightarrow((v8\_yellow\_0\ X1\ X0)\Leftrightarrow(\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X1)))\Rightarrow((r1\_yellow\_0\ X0\ X2)\Rightarrow(k1\_yellow\_0\ X0\ X2 \in u1\_struct\_0\ X1))))) \tag{14}$$

Assume the following.

$$\forall X0.(v1\_xboole\_0\ X0)\Rightarrow(\forall X1.((v1\_relat\_1\ X1)\wedge(v4\_relat\_1\ X1\ X0))\Rightarrow((v1\_xboole\_0\ X1)\wedge((v1\_relat\_1\ X1)\wedge(v4\_relat\_1\ X1\ X0)))) \tag{15}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0)\Rightarrow((v1\_lattice3\ X0)\Rightarrow(\neg v2\_struct\_0\ X0)) \tag{16}$$

Theorem 1

$$\forall X0.((v3\_orders\_2\ X0)\wedge((v4\_orders\_2\ X0)\wedge((v5\_orders\_2\ X0)\wedge((v1\_lattice3\ X0)\wedge((v2\_lattice3\ X0)\wedge((v3\_lattice3\ X0)\wedge(l1\_orders\_2\ X0)))))))\Rightarrow(\forall X1.((v3\_orders\_2\ X1)\wedge((v4\_orders\_2\ X1)\wedge((v5\_orders\_2\ X1)\wedge((v1\_lattice3\ X1)\wedge((v2\_lattice3\ X1)\wedge((v3\_lattice3\ X1)\wedge(l1\_orders\_2\ X1)))))))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_struct\_0\ (k2\_waybel27\ X0\ X1))))\Rightarrow(k1\_yellow\_0\ (k2\_waybel27\ X0\ X1)\ X2 = k1\_yellow\_0\ (k6\_yellow\_1\ (u1\_struct\_0\ X0)\ X1)\ X2)))$$