t29_waybel19 (TMbtw6nxzygXkriZGt1eUaqkZMjjtsmHBza)

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 $v2\_pre\_topc : \iota \Rightarrow o$ be given. Let $v1\_waybel19 : \iota \Rightarrow o$ be given. Let $m1\_yellow\_9 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4\_waybel11 : \iota \Rightarrow o$ be given. Let $v2\_waybel19 : \iota \Rightarrow o$ be given. Let $m3\_yellow\_9 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_pre\_topc : \iota \Rightarrow \iota$ be given. Let $k5\_waybel11 : \iota \Rightarrow \iota$ be given. Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $g1\_orders\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $u1\_orders\_2 : \iota \Rightarrow \iota$ be given. Let $k1\_waybel19 : \iota \Rightarrow \iota$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k4\_subset\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l1\_pre\_topc : \iota \Rightarrow o$ be given. Let $l1\_waybel\_9 : \iota \Rightarrow o$ be given. Let $v1\_tops\_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2\_cantor\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((v3\_orders\_2\ X0) \wedge ((v4\_orders\_2\ X0) \wedge ((v5\_orders\_2\ X0) \wedge ((v1\_lattice3\ X0) \wedge ((v2\_lattice3\ X0) \wedge ((v3\_lattice3\ X0) \wedge (l1\_orders\_2\ X0)))))) \Rightarrow (\forall X1.((v4\_waybel11\ X1) \wedge (m1\_yellow\_9\ X1\ X0)) \Rightarrow (u1\_pre\_topc\ X1 = k5\_waybel11\ X0)) \tag{1}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0) \wedge (l1\_orders\_2\ X0)) \Rightarrow (\forall X1.((\neg v2\_struct\_0\ X1) \wedge (l1\_orders\_2\ X1)) \Rightarrow ((g1\_orders\_2\ (u1\_struct\_0\ X0)\ (u1\_orders\_2\ X0) = g1\_orders\_2\ (u1\_struct\_0\ X1)\ (u1\_orders\_2\ X1)) \Rightarrow (k1\_waybel19\ X0 = k1\_waybel19\ X1))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ X0)) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ X0))) \Rightarrow (k4\_subset\_1\ X0\ X1\ X2 = k2\_xboole\_0\ X1\ X2) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.k2\_xboole\_0\ X0\ X0 = X0 \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X0)))\Rightarrow(\forall X2.\forall X3.(g1\_orders\_2\ X0\ X1 = g1\_orders\_2\ X2\ X3)\Rightarrow((X0 = X2)\wedge(X1 = X3))) \tag{5}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0)\Rightarrow(m1\_subset\_1\ (u1\_orders\_2\ X0)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X0)))) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.((l1\_pre\_topc\ X0)\wedge(l1\_pre\_topc\ X1))\Rightarrow(\forall X2.(m3\_yellow\_9\ X2\ X0\ X1)\Rightarrow((v2\_pre\_topc\ X2)\wedge(l1\_pre\_topc\ X2))) \tag{7}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0)\Rightarrow(\forall X1.(m1\_yellow\_9\ X1\ X0)\Rightarrow(l1\_waybel\_9\ X1)) \tag{8}$$

Assume the following.

$$\forall X0.(l1\_waybel\_9\ X0)\Rightarrow((l1\_pre\_topc\ X0)\wedge(l1\_orders\_2\ X0)) \tag{9}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v3\_orders\_2\ X0)\wedge(l1\_orders\_2\ X0)))\Rightarrow(m1\_subset\_1\ (k5\_waybel11\ X0)\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))) \tag{10}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge(l1\_orders\_2\ X0))\Rightarrow(m1\_subset\_1\ (k1\_waybel19\ X0)\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))) \tag{11}$$

Assume the following.

$$\forall X0.(l1\_pre\_topc\ X0)\Rightarrow(\forall X1.(l1\_pre\_topc\ X1)\Rightarrow(\forall X2.((v2\_pre\_topc\ X2)\wedge(l1\_pre\_topc\ X2))\Rightarrow((m3\_yellow\_9\ X2\ X0\ X1)\Leftrightarrow((u1\_struct\_0\ X2 = k2\_xboole\_0\ (u1\_struct\_0\ X0)\ (u1\_struct\_0\ X1))\wedge((v1\_tops\_2\ (k2\_xboole\_0\ (u1\_pre\_topc\ X0)\ (u1\_pre\_topc\ X1))\ X2)\wedge((v2\_cantor\_1\ (k2\_xboole\_0\ (u1\_pre\_topc\ X0)\ (u1\_pre\_topc\ X1))\ X2)\wedge(m1\_subset\_1\ (k2\_xboole\_0\ (u1\_pre\_topc\ X0)\ (u1\_pre\_topc\ X1))\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X2))))))))))) \tag{12}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0)\Rightarrow(\forall X1.(l1\_waybel\_9\ X1)\Rightarrow((m1\_yellow\_9\ X1\ X0)\Leftrightarrow(g1\_orders\_2\ (u1\_struct\_0\ X1)\ (u1\_orders\_2\ X1) = g1\_orders\_2\ (u1\_struct\_0\ X0)\ (u1\_orders\_2\ X0)))) \tag{13}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v3\_orders\_2\ X0)\wedge(l1\_waybel\_9\ X0)))\Rightarrow((v2\_waybel19\ X0)\Leftrightarrow((v1\_tops\_2\ (k4\_subset\_1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))\ (k1\_waybel19\ X0)\ (k5\_waybel11\ X0))\ X0)\wedge((v2\_cantor\_1\ (k4\_subset\_1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))\ (k1\_waybel19\ X0)\ (k5\_waybel11\ X0))\ X0)\wedge(m1\_subset\_1\ (k4\_subset\_1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))\ (k1\_waybel19\ X0)\ (k5\_waybel11\ X0))\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))))))) \tag{14}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge(l1\_orders\_2\ X0))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))))\Rightarrow((X1 = k1\_waybel19\ X0)\Leftrightarrow(\forall X2.((v2\_pre\_topc\ X2)\wedge((v1\_waybel19\ X2)\wedge(m1\_yellow\_9\ X2\ X0)))\Rightarrow(X1 = u1\_pre\_topc\ X2)))) \tag{15}$$

Assume the following.

$$\forall X0.\forall X1.k2\_xboole\_0\ X0\ X1 = k2\_xboole\_0\ X1\ X0 \tag{16}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v3\_lattice3\ X0)\wedge(l1\_orders\_2\ X0)))\Rightarrow(\forall X1.(m1\_yellow\_9\ X1\ X0)\Rightarrow(v3\_lattice3\ X1)) \tag{17}$$

Assume the following.

$$\forall X0.((v5\_orders\_2\ X0)\wedge(l1\_orders\_2\ X0))\Rightarrow(\forall X1.(m1\_yellow\_9\ X1\ X0)\Rightarrow(v5\_orders\_2\ X1)) \tag{18}$$

Assume the following.

$$\forall X0.((v4\_orders\_2\ X0)\wedge(l1\_orders\_2\ X0))\Rightarrow(\forall X1.(m1\_yellow\_9\ X1\ X0)\Rightarrow(v4\_orders\_2\ X1)) \tag{19}$$

Assume the following.

$$\forall X0.((v3\_orders\_2\ X0)\wedge(l1\_orders\_2\ X0))\Rightarrow(\forall X1.(m1\_yellow\_9\ X1\ X0)\Rightarrow(v3\_orders\_2\ X1)) \tag{20}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge(l1\_orders\_2\ X0))\Rightarrow(\forall X1.(m1\_yellow\_9\ X1\ X0)\Rightarrow(\neg v2\_struct\_0\ X1)) \tag{21}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0) \Rightarrow (((\neg v2\_struct\_0\ X0) \wedge (v3\_lattice3\ X0)) \Rightarrow ((\neg v2\_struct\_0\ X0) \wedge ((v1\_lattice3\ X0) \wedge (v2\_lattice3\ X0)))) \tag{22}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0) \Rightarrow ((v1\_lattice3\ X0) \Rightarrow (\neg v2\_struct\_0\ X0)) \tag{23}$$

Theorem 1

$$\forall X0.((v3\_orders\_2\ X0) \wedge ((v4\_orders\_2\ X0) \wedge ((v5\_orders\_2\ X0) \wedge ((v1\_lattice3\ X0) \wedge ((v2\_lattice3\ X0) \wedge ((v3\_lattice3\ X0) \wedge (l1\_orders\_2\ X0)))))) \Rightarrow (\forall X1.((v2\_pre\_topc\ X1) \wedge ((v1\_waybel19\ X1) \wedge (m1\_yellow\_9\ X1\ X0))) \Rightarrow (\forall X2.((v4\_waybel11\ X2) \wedge (m1\_yellow\_9\ X2\ X0)) \Rightarrow (\forall X3.((v2\_pre\_topc\ X3) \wedge (m1\_yellow\_9\ X3\ X0)) \Rightarrow ((v2\_waybel19\ X3) \Leftrightarrow (m3\_yellow\_9\ X3\ X2\ X1)))))$$