t52_abcmiz_0 (TMUvXabJBwHNrCXi3r5tZ7oytyfGLqKQa3F)

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 $v1\_abcmiz\_0 : \iota \Rightarrow o$ be given. Let $v9\_abcmiz\_0 : \iota \Rightarrow o$ be given. Let $l2\_abcmiz\_0 : \iota \Rightarrow o$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $u1\_struct\_0 : \iota \Rightarrow \iota$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $u1\_abcmiz\_0 : \iota \Rightarrow \iota$ be given. Let $r3\_orders\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_abcmiz\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r2\_abcmiz\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6\_abcmiz\_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l1\_orders\_2 : \iota \Rightarrow o$ be given. Let $k1\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1\_yellow\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r2\_lattice3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1\_orders\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $k3\_finsub\_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_abcmiz\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_waybel\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_waybel\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v12\_waybel\_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2\_struct\_0 : \iota \Rightarrow o$ be given. Let $v4\_finsub\_1 : \iota \Rightarrow o$ be given. Let $k3\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $l1\_abcmiz\_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.((v5\_orders\_2\ X0) \wedge (l1\_orders\_2\ X0)) \Rightarrow (\forall X1.\ (m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)) \Rightarrow (\forall X2.(((X1 = k1\_yellow\_0\ X0\ X2) \wedge (r1\_yellow\_0\ X0\ X2)) \Rightarrow ((r2\_lattice3\ X0\ X2\ X1) \wedge (\forall X3.\ (m1\_subset\_1\ X3\ (u1\_struct\_0\ X0)) \Rightarrow ((r2\_lattice3\ X0\ X2\ X3) \Rightarrow (r1\_orders\_2\ X0\ X1\ X3))))))) \wedge (((r2\_lattice3\ X0\ X2\ X1) \wedge (\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0)) \Rightarrow ((r2\_lattice3\ X0\ X2\ X3) \Rightarrow (r1\_orders\_2\ X0\ X1\ X3)))) \Rightarrow ((X1 = k1\_yellow\_0\ X0\ X2) \wedge (r1\_yellow\_0\ X0\ X2)))))) \tag{1}$$

Assume the following.

$$\forall X0.((v3\_orders\_2\ X0)\wedge((v4\_orders\_2\ X0)\wedge((v5\_orders\_2\ X0)\wedge((v1\_lattice3\ X0)\wedge((v9\_abcmiz\_0\ X0)\wedge(l2\_abcmiz\_0\ X0))))))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_abcmiz\_0\ X0)))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow((r2\_abcmiz\_0\ X0\ X2\ X1)\Rightarrow((\neg v1\_xboole\_0\ (k3\_finsub\_1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))\ (k4\_abcmiz\_0\ X0\ X1)\ (k5\_waybel\_0\ X0\ X2)))\wedge((v1\_waybel\_0\ (k3\_finsub\_1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))\ (k4\_abcmiz\_0\ X0\ X1)\ (k5\_waybel\_0\ X0\ X2))\ X0)\wedge((v12\_waybel\_0\ (k3\_finsub\_1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))\ (k4\_abcmiz\_0\ X0\ X1)\ (k5\_waybel\_0\ X0\ X2))\ X0)\wedge(m1\_subset\_1\ (k3\_finsub\_1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))\ (k4\_abcmiz\_0\ X0\ X1)\ (k5\_waybel\_0\ X0\ X2))\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))))))))) \tag{2}$$

Assume the following.

$$\forall X0.((v3\_orders\_2\ X0)\wedge((v4\_orders\_2\ X0)\wedge((v5\_orders\_2\ X0)\wedge((v1\_lattice3\ X0)\wedge((v1\_abcmiz\_0\ X0)\wedge(l1\_orders\_2\ X0))))))\Rightarrow(\forall X1.((\neg v1\_xboole\_0\ X1)\wedge((v1\_waybel\_0\ X1\ X0)\wedge((v12\_waybel\_0\ X1\ X0)\wedge(m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0))))))\Rightarrow((r1\_yellow\_0\ X0\ X1)\wedge(k1\_yellow\_0\ X0\ X1\in X1))) \tag{3}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge(l1\_orders\_2\ X0))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))\Rightarrow((X2\in k5\_waybel\_0\ X0\ X1)\Leftrightarrow(r1\_orders\_2\ X0\ X2\ X1)))) \tag{4}$$

Assume the following.

$$\forall X0.((\neg v2\_struct\_0\ X0)\wedge(l2\_abcmiz\_0\ X0))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_abcmiz\_0\ X0)))\Rightarrow((r1\_tarski\ X2\ (k2\_abcmiz\_0\ X0\ X1))\Leftrightarrow(X1\in k4\_abcmiz\_0\ X0\ X2)))) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((\neg v2\_struct\_0\ X0)\wedge((v3\_orders\_2\ X0)\wedge(l1\_orders\_2\ X0)))\wedge((m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\wedge(m1\_subset\_1\ X2\ (u1\_struct\_0\ X0))))\Rightarrow((r3\_orders\_2\ X0\ X1\ X2)\Leftrightarrow(r1\_orders\_2\ X0\ X1\ X2)) \tag{6}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((\neg v1\_xboole\_0\ X0)\wedge(v4\_finsub\_1\ X0))\wedge((m1\_subset\_1\ X1\ X0)\wedge(m1\_subset\_1\ X2\ X0)))\Rightarrow(k3\_finsub\_1\ X0\ X1\ X2 = k3\_xboole\_0\ X1\ X2) \tag{7}$$

Assume the following.

$$\forall X0.\neg v1\_xboole\_0\ (k1\_zfmisc\_1\ X0) \tag{8}$$

Assume the following.

$$\forall X0.v4\_finsub\_1\ (k1\_zfmisc\_1\ X0) \tag{9}$$

Assume the following.

$$\forall X0.(l2\_abcmiz\_0\ X0)\Rightarrow((l1\_orders\_2\ X0)\wedge(l1\_abcmiz\_0\ X0)) \tag{10}$$

Assume the following.

$$\begin{gathered}\forall X0.\forall X1.(((\neg v2\_struct\_0\ X0)\wedge(l1\_orders\_2\ X0))\wedge \\ (m1\_subset\_1\ X1\ (u1\_struct\_0\ X0)))\Rightarrow(m1\_subset\_1\ (k5\_waybel\_0 \\ X0\ X1)\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\end{gathered} \tag{11}$$

Assume the following.

$$\begin{gathered}\forall X0.\forall X1.(((\neg v2\_struct\_0\ X0)\wedge(l2\_abcmiz\_0\ X0))\wedge \\ (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (u1\_abcmiz\_0\ X0))))\Rightarrow(m1\_subset\_1 \\ (k4\_abcmiz\_0\ X0\ X1)\ (k1\_zfmisc\_1\ (u1\_struct\_0\ X0)))\end{gathered} \tag{12}$$

Assume the following.

$$\begin{gathered}\forall X0.\forall X1.(l1\_orders\_2\ X0)\Rightarrow(m1\_subset\_1\ (k1\_yellow\_0 \\ X0\ X1)\ (u1\_struct\_0\ X0))\end{gathered} \tag{13}$$

Assume the following.

$$\begin{gathered}\forall X0.(l1\_orders\_2\ X0)\Rightarrow(\forall X1.\forall X2.(m1\_subset\_1 \\ X2\ (u1\_struct\_0\ X0))\Rightarrow((r2\_lattice3\ X0\ X1\ X2)\Leftrightarrow(\forall X3.(m1\_subset\_1 \\ X3\ (u1\_struct\_0\ X0))\Rightarrow((X3\in X1)\Rightarrow(r1\_orders\_2\ X0\ X3\ X2)))))\end{gathered} \tag{14}$$

Assume the following.

$$\begin{gathered}\forall X0.\forall X1.\forall X2.(X2=k3\_xboole\_0\ X0\ X1)\Leftrightarrow(\forall X3. \\ (X3\in X2)\Leftrightarrow((X3\in X0)\wedge(X3\in X1)))\end{gathered} \tag{15}$$

Assume the following.

$$\begin{gathered}\forall X0.((\neg v2\_struct\_0\ X0)\wedge((v3\_orders\_2\ X0)\wedge((v4\_orders\_2 \\ X0)\wedge(l2\_abcmiz\_0\ X0))))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0 \\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_abcmiz\_0\ X0)))\Rightarrow \\ (k6\_abcmiz\_0\ X0\ X1\ X2=k1\_yellow\_0\ X0\ (k3\_finsub\_1\ (k1\_zfmisc\_1 \\ (u1\_struct\_0\ X0))\ (k4\_abcmiz\_0\ X0\ X2)\ (k5\_waybel\_0\ X0\ X1)))))\end{gathered} \tag{16}$$

Assume the following.

$$\forall X0.(l2\_abcmiz\_0\ X0)\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_abcmiz\_0\ X0)))\Rightarrow((r2\_abcmiz\_0\ X0\ X1\ X2)\Leftrightarrow(\exists X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\wedge((r1\_tarski\ X2\ (k2\_abcmiz\_0\ X0\ X3))\wedge(r1\_orders\_2\ X0\ X3\ X1))))))) \tag{17}$$

Assume the following.

$$\forall X0.\forall X1.k3\_xboole\_0\ X0\ X1 = k3\_xboole\_0\ X1\ X0 \tag{18}$$

Assume the following.

$$\forall X0.(l1\_orders\_2\ X0)\Rightarrow((v1\_lattice3\ X0)\Rightarrow(\neg v2\_struct\_0\ X0)) \tag{19}$$

Theorem 1

$$\forall X0.((v3\_orders\_2\ X0)\wedge((v4\_orders\_2\ X0)\wedge((v5\_orders\_2\ X0)\wedge((v1\_lattice3\ X0)\wedge((v1\_abcmiz\_0\ X0)\wedge((v9\_abcmiz\_0\ X0)\wedge(l2\_abcmiz\_0\ X0)))))))\Rightarrow(\forall X1.(m1\_subset\_1\ X1\ (u1\_struct\_0\ X0))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (u1\_abcmiz\_0\ X0)))\Rightarrow(\forall X3.(m1\_subset\_1\ X3\ (u1\_struct\_0\ X0))\Rightarrow(((r3\_orders\_2\ X0\ X3\ X1)\wedge(r1\_tarski\ X2\ (k2\_abcmiz\_0\ X0\ X3)))\Rightarrow((r2\_abcmiz\_0\ X0\ X1\ X2)\wedge(r3\_orders\_2\ X0\ X3\ (k6\_abcmiz\_0\ X0\ X1\ X2)))))))$$